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## ABSTRACT

An evaluation was conducted of tech prep, a focused, sequential 6-year course of study for high school and technical college students in North Carolina, using 19 criteria that were identified as being necessary to qualify for tech prep funding. Evaluation activities carried out by the North Carolina Departments of Public Instruction and Community Colleges included regional meetings at which each of the 45 funded tech prep consortia gave brief oral presentations highlighting the year's activities and a review of executive summaries and budget sheets by third-party contractors. There was some uncertainty associated with the evaluation process, because third-party evaluators were not present during the meetings. However, analysis of the summaries and the reviews produced the following observations: (1) most of the programs were rated average or above average; (2) postsecondary activity was rated low in collaboration, curriculum development, and staff development; (3) activities to establish program services for special populations were also rated somewhat low; (4) business and industry collaboration also lagged somewhat, especially on the postsecondary level; (5) purposes addressed, grant objectives addressed, articulation, and marketing strategies were rated above average for all consortia; and (6) few evaluation efforts appeared to have been made. The study concluded that tech prep was generally a positive program, but that it had not developed a consistent thematic approach throughout the state. (This report includes summaries of the 45 programs that were evaluated, 28 figures, and 4 tables.) (KC)

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## I. Introduction

Tech Prep (Technical Preparation) is a focused, sequential six-year course of study designed to meet the need for high school and community college graduates to have greater academic rigor and a stronger technical educational foundation. Through a blending of higher-level academic and vocational/technical secondary courses, Tech Prep prepares students for advanced courses required by two-year technical and community college programs, which in turn prepares workers for increasingly sophisticated occupations. At present, the North Carolina Department of Public Instruction (DPI) and Department of Community Colleges (DCC) provide grants to Tech Prep consortia based upon competitive proposals received from all interested local education agencies (LEAs) who have developed agreements with community colleges or other post secondary institutions to provide a 2 + 2 + 2 year educational program consisting of two years of secondary preparatory course work (grades 9 and 10), two years of occupational/technical-specific and advanced academic secondary course work (grades 11 and 12), followed by two years post secondary course work leading to the associate degree or certificate of completion. The size of the grants are determined by a formula based upon the number of LEAs participating in the consortia. Under this formula, a planning consortium receives \$25,000 per participating LEA up to a maximum \$75,000 per planning grant. An implementation consortium receives \$50,000 per participating LEA up to a \$150,000 limit per planning grant. Consortia are limited to one planning grant, but the same consortia may receive up to two implementation grants. A reapplication is required for each grant.

The following is a summarization of the monitoring activities designed to evaluate the 1992/93 Tech Prep programs in North Carolina which received funding from Title III of the Carl D. Perkins Vocational and Applied Technology Education Act of 1990. Table 1 lists the 45 consortia which received such funds. The evaluation described and summarized included a review panel format developed and conducted by personnel from the North Carolina Department of Public and Instruction (DPI) and the North Carolina Department of Community Colleges (DCC) during June and July, 1993. The data from these review panel meetings was tabulated and compiled by an independent third party contracted with a third party contracted by DPI and DCC. The third party also reviewed and evaluated executive summaries of all activities conducted under the 1992-93 Tech Prep grants program. These executive summaries were submitted by all participating consortia at the review panel meetings. This report includes the following sections: Evaluation Summary which describes the review panel process and summarizes results their quantitative results, Programmatic Overview and Representative Activities which summarizes the third party qualitative review of material submitted by participating consortia, and Conclusions and Recommendations which presents generalized statements which may be drawn from the two earlier sections. For additional information, appendices to this report include summary evaluation sheets compiled for each consortia based upon the review panel meetings, reprints of

each executive summary submitted by participating consortia, and analytic data compiled for the quantitative analysis presented in this report.

**Table 1**  
**1992-93 Tech Prep Consortia**

Consortia Number	1992/1993 Tech Prep Consortia Members	
	Secondary Partners	Post Secondary Partners
<b>PLANNING</b>		
92P-1	Alexander County Schools	Catawba Valley Community College **
92P-2	Brunswick County Schools	Brunswick Community College
92P-3	Burke County Schools	Western Piedmont Community College
92P-4	Columbus County Schools Whiteville City Schools	Southeastern Community College
92P-5	Elkin City Schools Surry County Schools Mt. Airy City Schools Yadkin County Schools Stokes County Schools	Surry Community College
92P-6	Gaston County Schools	Gaston College NC Center for Applied Textile Technology
92P-7	Hoke County Schools	Sandhills Community College
92P-8	Lenoir County Schools Kinston City Schools Greene County Schools Jones County Schools	Lenoir Community College
92P-9	Union County Schools Monroe City Schools	Union Campus of Anson-Stanly Community College
92P-10	Washington City Schools Beaufort County Schools	Beaufort County Community College **
<b>IMPLEMENTATION</b>		
92I-1	Alleghany County Schools	Wilkes Community College **
92I-2	Anson County Schools	Anson Community College
92I-3	Ashe County Schools	Wilkes Community College **
92I-4	Avery County Schools Mountain Heritage High School	Mayland Community College **
92I-5	Bladen County Schools	Bladen Community College



Consortia Number	1992/1993 Tech Prep Consortia Members	
	Secondary Partners	Post Secondary Partners
92I-6	Cabarrus County Schools	Rowan-Cabarrus Community College
92I-7	Carteret County Schools	Carteret Community College
92I-8	Catawba County Schools	Catawba Valley Community College **
92I-9	Charlotte-Mecklenburg Schools	Central Piedmont Community College
92I-10	Cherokee County Schools Clay County Schools Graham County Schools	Tri-County Community College
92I-11	Clinton City Schools Sampson County Schools	Sampson Community College
92I-12	Craven County Schools	Craven Community College
92I-13	Cumberland County Schools	Fayetteville Technical Community College
92I-14	Davidson County Schools Lexington City Schools Thomasville City Schools Davie County Schools	Davidson County Community College
92I-15	Durham Public Schools	Durham Technical Community College **
92I-16	Edgecombe County Schools Tarboro City Schools	Edgecombe Community College **
92I-17	Harnett County Schools	Central Carolina Community College
92I-18	Haywood County Schools	Haywood Community College
92I-19	Kings Mountain City Schools Cleveland County Schools Shelby City Schools	Cleveland Community College
92I-20	Macon County Schools	Southwestern Community College
92I-21	McDowell County Schools	McDowell Technical Community College
92I-22	Mitchell County Schools	Mayland Community College **
92I-23	Nash-Rocky Mount Schools	Edgecombe Community College ** Nash Community College
92I-24	Onslow County Schools	Coastal Carolina Community College
92I-25	Orange County Schools	Alamance Community College Durham Technical Community College **
92I-26	Pitt County Schools	Pitt Community College
92I-27	Polk County Schools	Isothermal Community College
92I-28	Reidsville City Schools	Rockingham Community College **

Consortia Number	1992/1993 Tech Prep Consortia Members	
	Secondary Partners	Post Secondary Partners
92I-29	Richmond County Schools	Richmond Community College
92I-30	Robeson County Schools	Robeson Community College
92I-31	Rockingham County Schools Western Rockingham City Schools Eden City Schools	Rockingham Community College **
92I-32	Stanly County Schools	Stanly Community College
92I-33	Tyrrell County Schools	Beaufort County Community College **
92I-34	Weldon City Schools Halifax County Schools Northampton County Schools Roanoke Rapids City Schools	Halifax Community College
92I-35	Winston-Salem/Forsyth Schools	Forsyth Technical Community College

\*\* Indicates Community College participates in more than one Tech Prep consortia

## II. Review Panel Summary

The Tech Prep activities conducted using Perkins Act funds for the 1992-93 school year were reviewed by personnel from the DPI, DCC, and the North Carolina Tech Prep Leadership Center (NCTPLC) at regional meetings in during the summer, 1993. Contracted personnel provided tabulation and compilation evaluation summary sheets completed at each review panel meeting. Since contracted personnel did not participate in the panel review development process nor were present at any review panel meeting, the data presented herein is based upon secondary information sources. As such, the summaries presented in this report represent observations made only on that basis and should not be interpreted as a definitive description or inclusion of all Tech Prep grant activities for the 1992-93 school year.

### Methodology

Representatives from the DPI, DCC, and NCTPLC conducted seven regional meetings at four locations during June and July, 1993. Table 2 presents the schedule of regional meetings. During the course of these meetings each of the 45 1992-93 Tech Prep consortia were requested to present a live presentation of approximately 30-45 minutes. Consortia members were not given a prescribed format for their presentations. A panel of representatives from DPI, DCC, and NCTPLC formed a review panel which evaluated the presentations using an instrument developed jointly by DPI and DCC. The instrument was not distributed to consortia members prior to the meetings. Evaluation panel members did not meet prior to the regional meetings to establish inter-rater standards. Additionally, panel members did not take part in any post-panel meetings to compare individual evaluator ratings to determine consensus evaluation scores. As such the results presented herein should be interpreted as representative observations by each panel member and not as representing collective evaluation by the whole evaluation panel. The evaluation sheets completed at each regional meeting are presented in Appendix A.

Table 2  
Schedule of Regional Evaluation Meetings

Date(s)	Location	No. Consortia
June 22	Fayetteville	8
June 23-24	Greenville	13
June 28-30	Hickory	22
July 1	Raleigh	2

## Evaluation Instrument

Development. DPI and DCC personnel developed an evaluation instrument using criteria included in the competitive Requests for Proposals (RFP) for Tech Prep Grants which were distributed during the spring, 1992. These RFPs were subsequently used to award Tech Prep planning and implementation grant for the 1992-1993 school year. The resulting instrument contained 19 items. The rating scale was a modified Likert-type which included 6 levels: Not Applicable, No Activity, Beginning, Below Average, Average, and Above Average. No standards for rating levels were developed prior to conducting the regional meetings. Table 3 reproduces the instrument which lists the criteria and rating scale.

Analysis. Analysis revealed that no consortia were rated on any item at the Not Applicable level. Therefore, that rating was eliminated from further analysis. Analysis of the rating scale conducted by contracted personnel revealed some interpretative problem with inter-rater rating assignment. Two ratings, No Activity and Beginning, appeared to be measuring quantity of effort, while the remaining three (Below Average, Average, and Above Average) appeared to measure quality of effort. Since some elements were rated as both, i.e., one evaluator rated an item as No Activity and another rated the same item as Average, it was decided to continue with the analysis on the basis of rating distribution rather than calculating score averages. Therefore, the evaluation sheets presented in Appendix A depict the actual ratings given by all review panel members rather than any general score derived from averaging all ratings across any element. As such, no mathematical averages are presented. While this makes comparison between consortia somewhat more difficult, it provides a truer depiction of evaluator intent at the time of each review.

## Results

The evaluation sheets were tabulated to determine distributions at each rating level. Two tabulations were performed, one for planning consortia and one for implementation consortia, to determine rating distributions for each evaluation criteria across all consortia. The total number of instances a rating level was assigned to a single element was divided by the total number of instances assigned to all rating levels for that element to determine percentages for rating distributions. Figure 3 presents these results for planning grant consortia, while Figure 4 presents these results for implementation consortia. These stacked bar charts present the total number of scores (by percentage) assigned by the evaluators from DPI, DCC and the NC Tech Prep Leadership Center. The data illustrate, for example, that for the first criteria element, Purposes Addressed, approximately 45% of the scores were at the Above average level while slightly under 40% were at the average level. Conversely, approximately 20% were at the Below Average, and 5% were at the Beginning level. There were no No Activity scores assigned for that criteria.

Table 3  
Evaluation Instrument

N/A = Not Applicable  
0 = No Activity

1 = Beginning  
2 = Below Average

3 = Average  
4 = Above Average

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities						
Grant Objective(s) Addressed						
Collaboration						
Vocational/Technical Education						
Academic Education						
Student Services						
Post Secondary						
Business/Industry						
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education						
Academic Education						
Post Secondary						
Staff Development						
Teachers						
Counselors						
Post Secondary						
Program Services for Special Populations						
Marketing Strategies						
Three-year Commitment						
Evaluation by Grant Consortium						

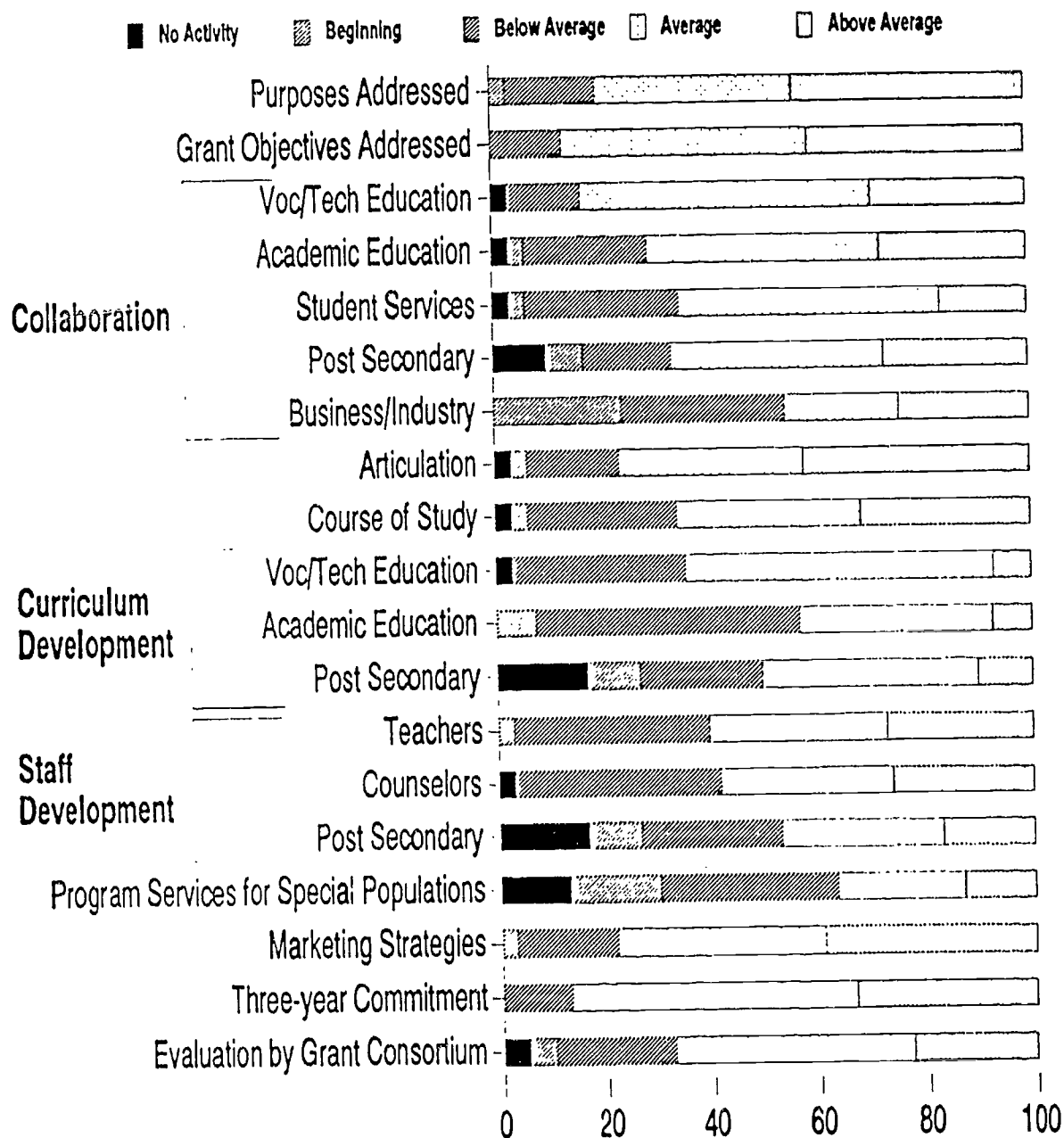


Figure 1  
Score Distribution of All Evaluation Criteria  
(Planning Consortia)

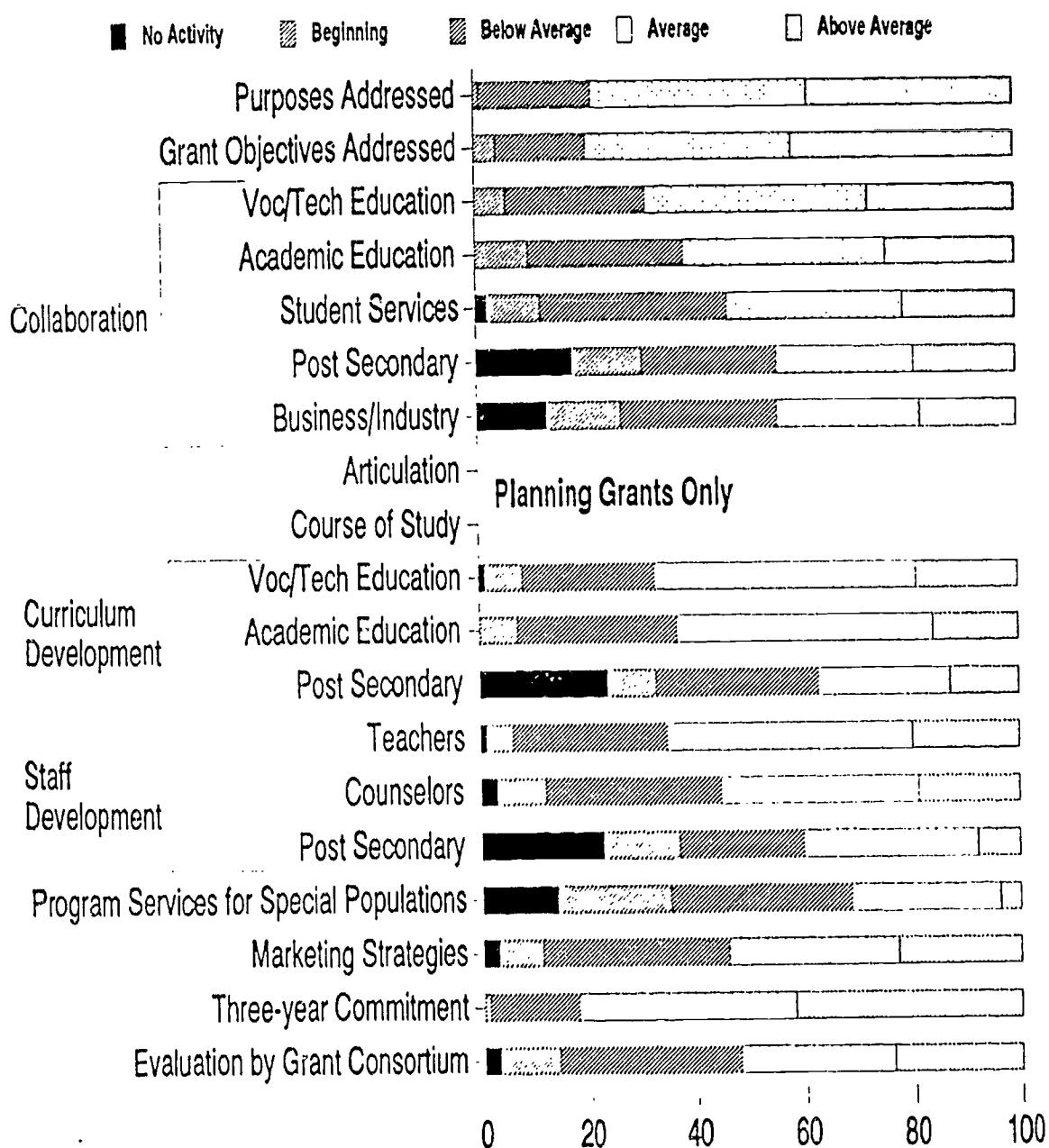


Figure 2  
Score Distribution of All Evaluation Criteria  
(Implementation Consortia)

To determine general rating distributions for each consortia, i.e., ratings for all criteria, the ratings of all evaluation criteria received by each consortia were totaled. Percentages of rating distributions across combined criteria were then calculated. To do



this, the total number of ratings given at a single rating level was divided by the aggregate total number of ratings given for all rating levels. The results of these tabulations are presented in Appendix B. This process was performed separately for both the ten planning consortia and for the 35 implementation consortia. Figure 3 presents the percentages of rating distribution for the ten Planning Grants, and Figure 4 presents these for the 35 Implementation Grants. As these data illustrate 6% of implementation and 5% of planning consortia were evaluated at the No Activity level, while 22% and 25% respectively were evaluated at the Above Average level.

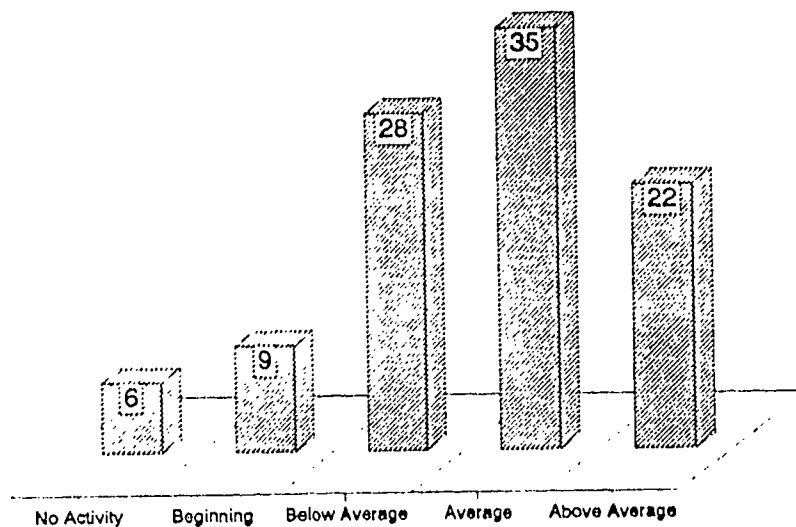


Figure 3  
Planning Grant Consortia  
(Distribution of Scores in Percent)

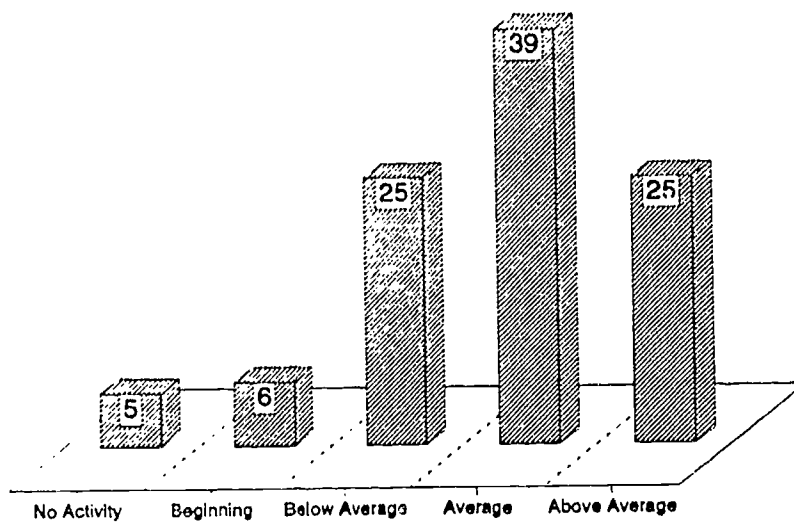


Figure 4  
Implementation Grant Consortia  
(Distribution of Scores in Percent)



Figures 5 - 22 present rating distributions for each evaluation criteria singly. The data represent how each evaluation criteria was rated across all consortia. The data for these tabulations are presented in Appendix B.

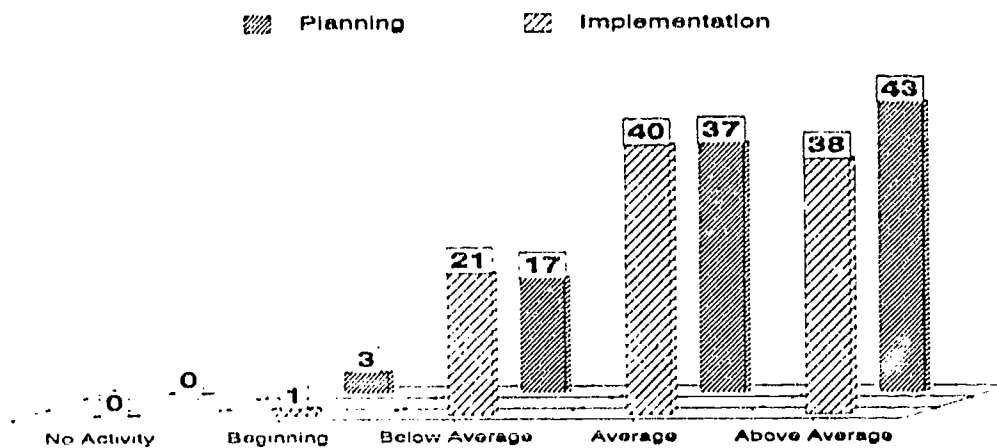


Figure 5  
Purposes Addressed by Grant Activities  
Score Distribution (Percent)

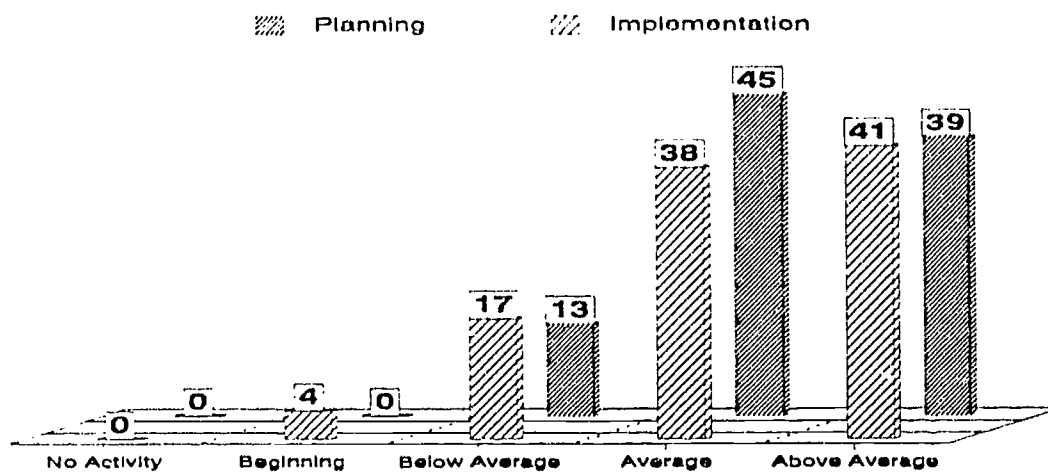


Figure 6  
Grant Objectives Addressed by Grant Activities  
Score Distribution (Percent)

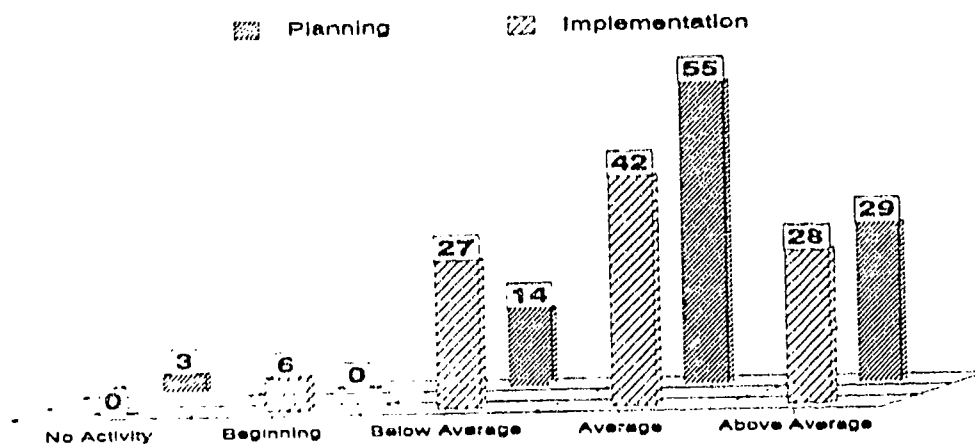


Figure 7  
Collaboration - Vocational/Technical Education  
Score Distribution (Percent)

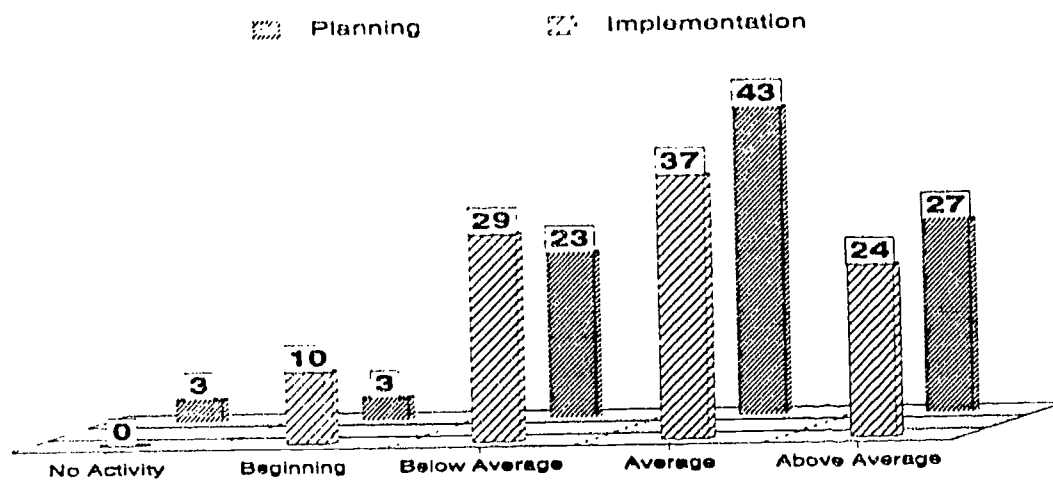


Figure 8  
Collaboration - Academic Education  
Score Distribution (Percent)

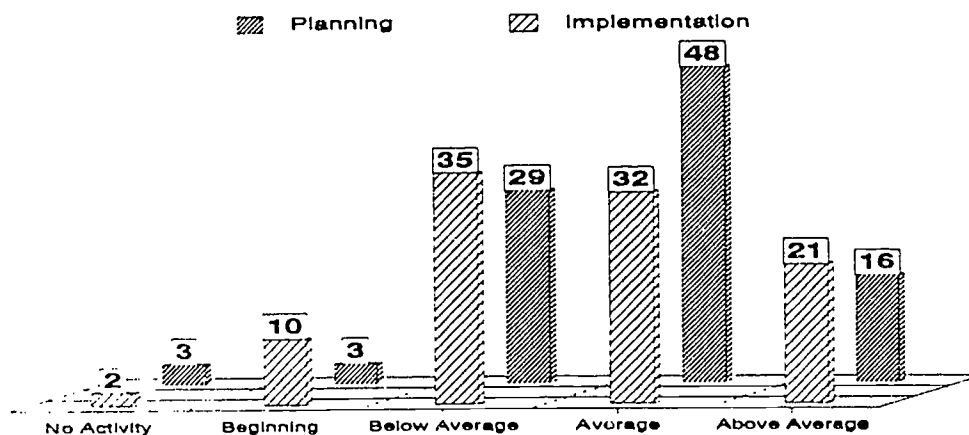


Figure 9  
Collaboration - Student Services  
Score Distribution (Percent)

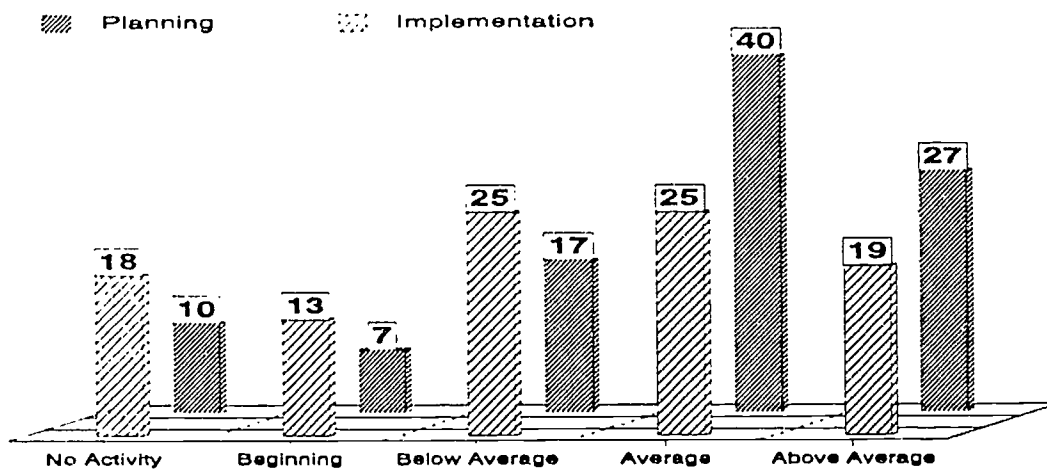


Figure 10  
Collaboration - Post Secondary  
Score Distribution (Percent)

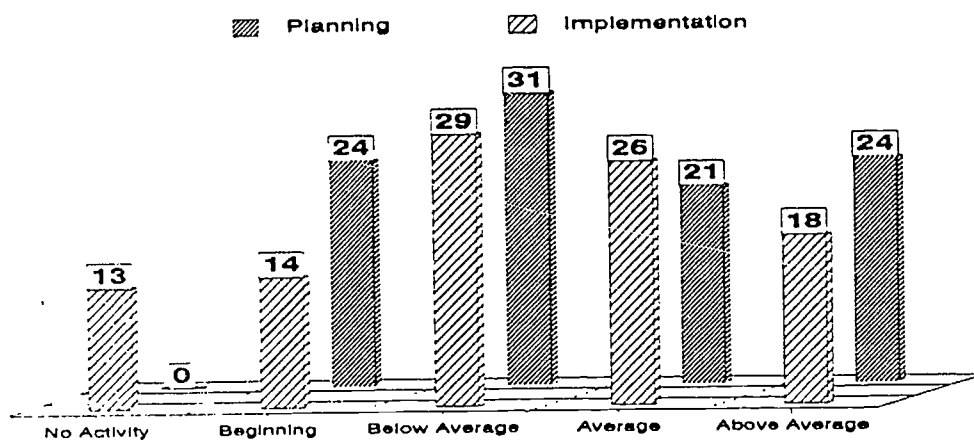


Figure 11  
Collaboration - Business/Industry  
Score Distribution (Percent)

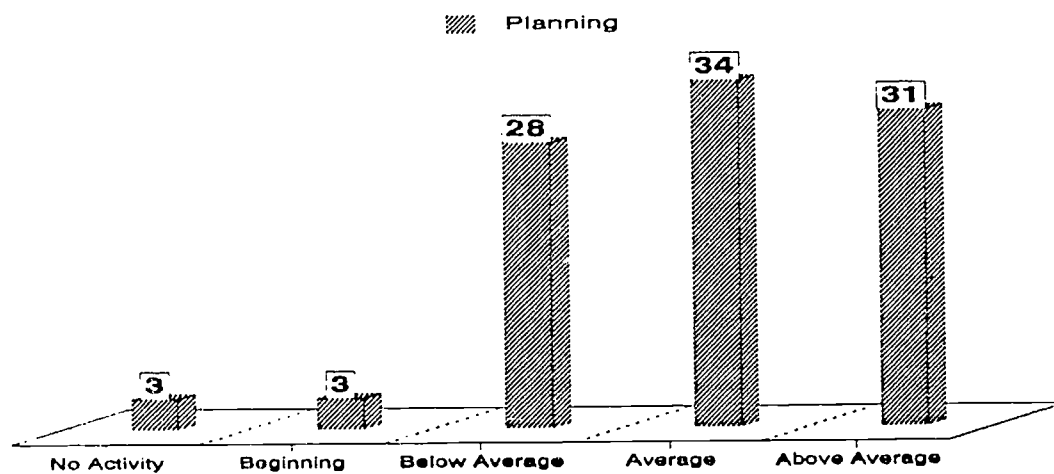


Figure 12  
Articulation (Planning Consortia Only)  
Score Distribution (Percent)

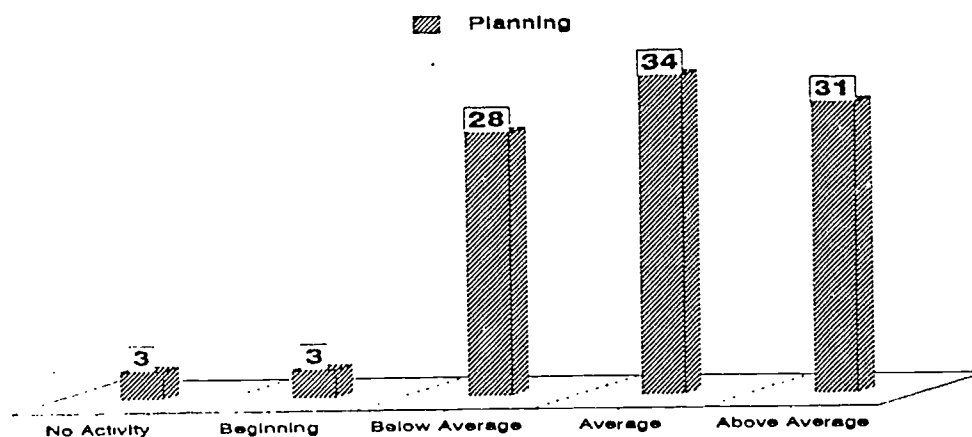


Figure 13  
Tech Prep Course of Study (Planning Consortia Only)  
Score Distribution (Percent)

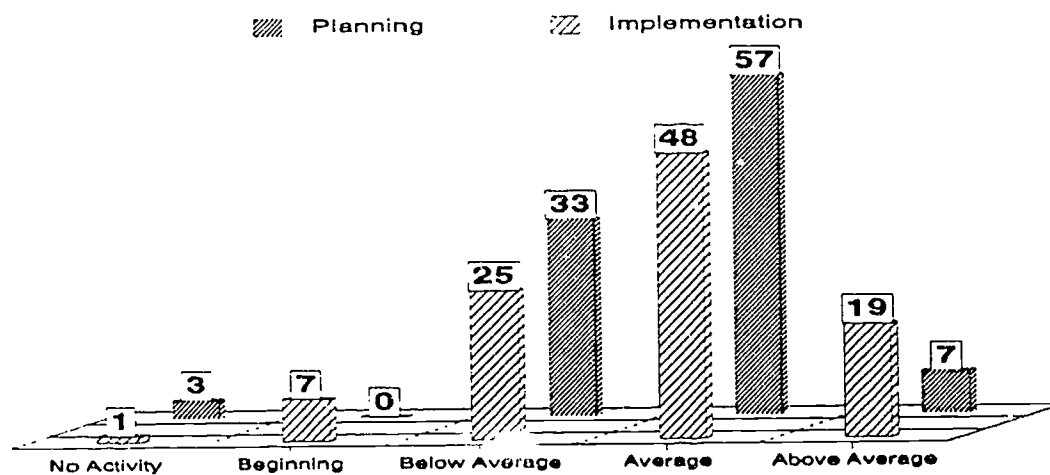


Figure 14  
Curriculum Development - Vocational/Technical Education  
Score Distribution (Percent)

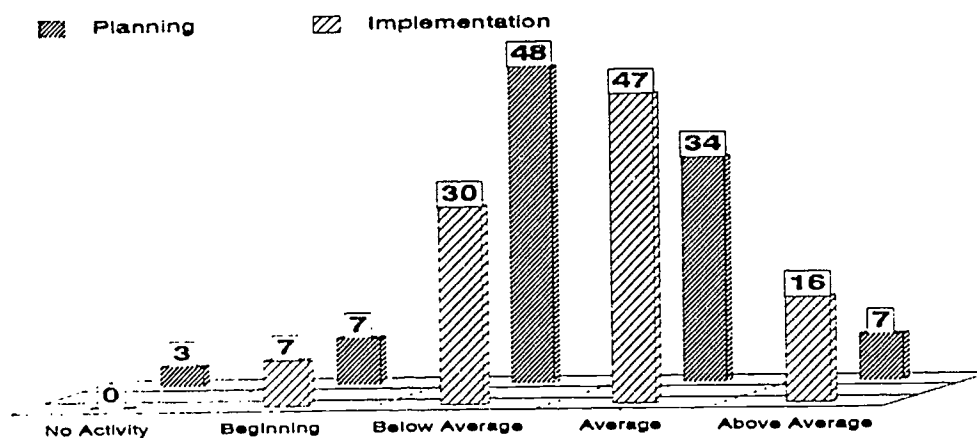


Figure 15  
Curriculum Development - Academic Education  
Score Distribution (Percent)

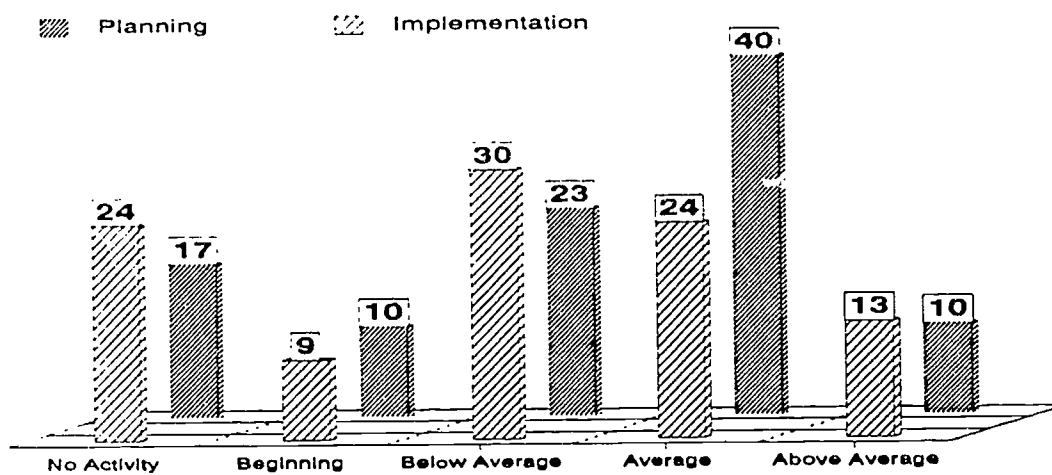


Figure 16  
Curriculum Development - Post Secondary  
Score Distribution (Percent)

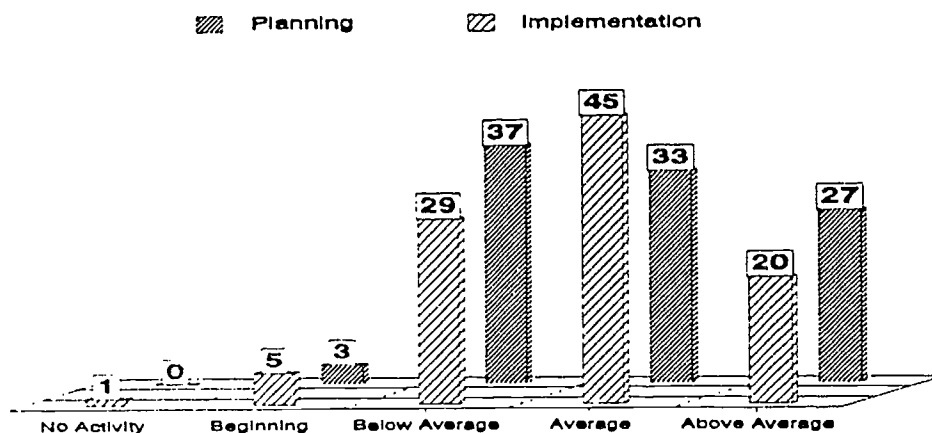


Figure 17  
Staff Development - Teachers  
Score Distribution (Percent)

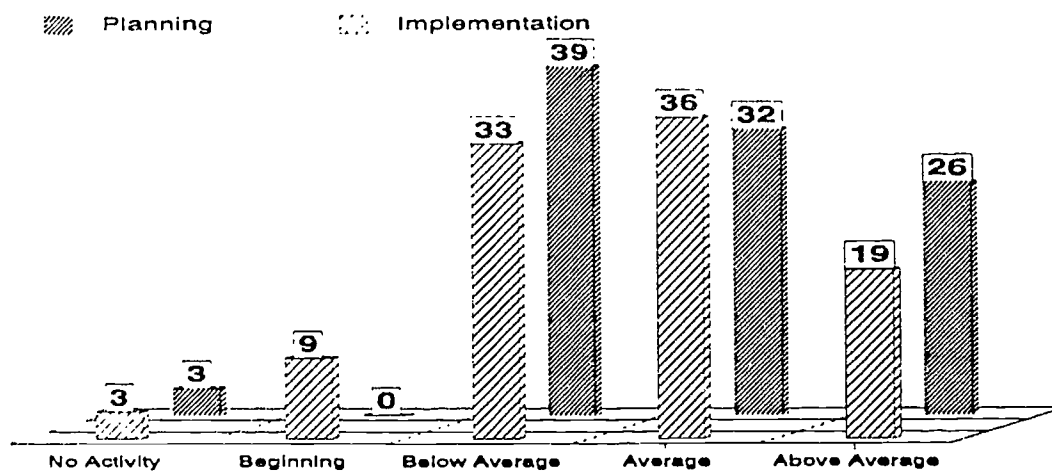


Figure 18  
Staff Development - Counselors  
Score Distribution (Percent)

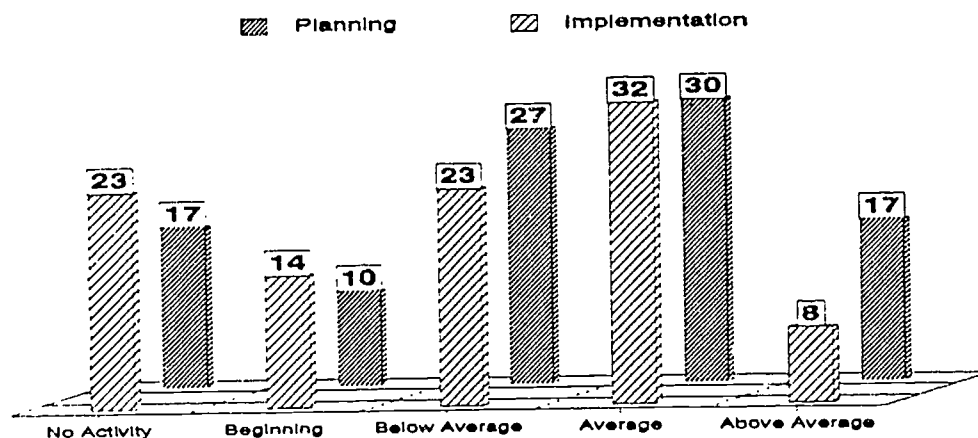


Figure 19  
Staff Development - Post Secondary  
Score Distribution (Percent)

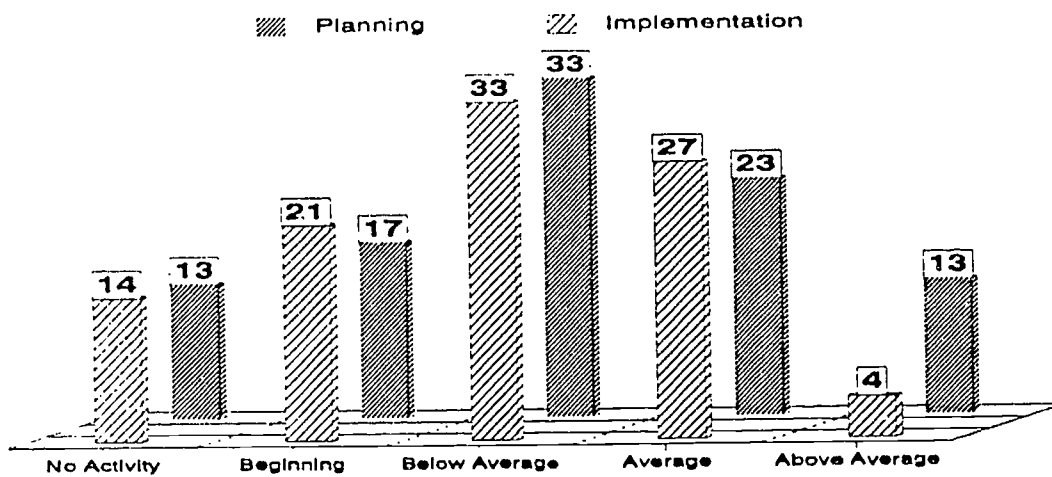


Figure 20  
Program Services for Special Populations  
Score Distribution (Percent)



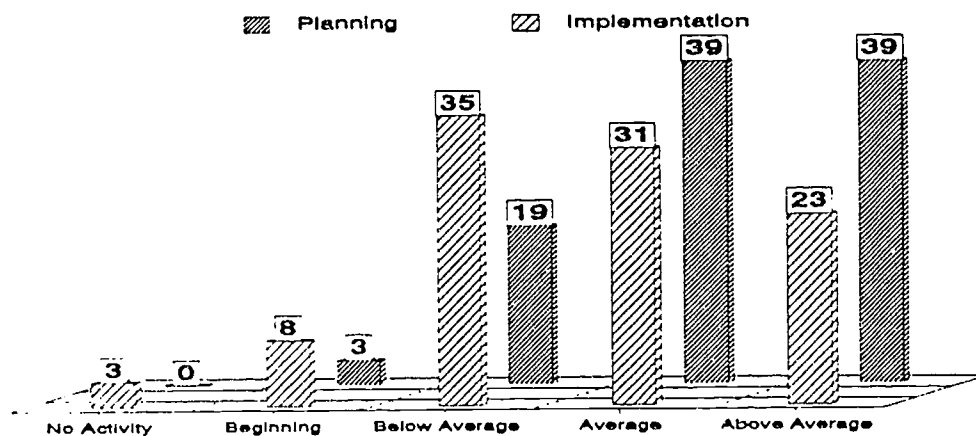


Figure 21  
Marketing Strategies  
Score Distribution (Percent)

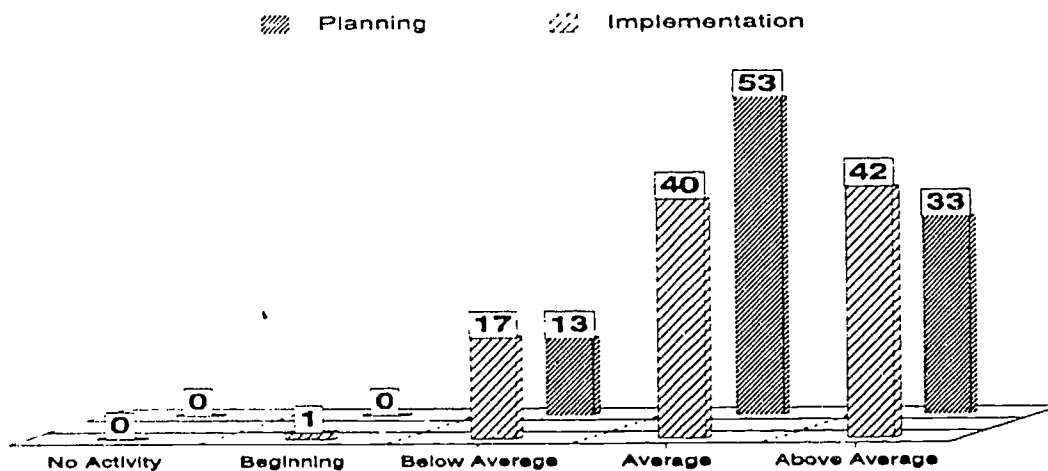


Figure 22  
Three-year Commitment  
Score Distribution (Percent)

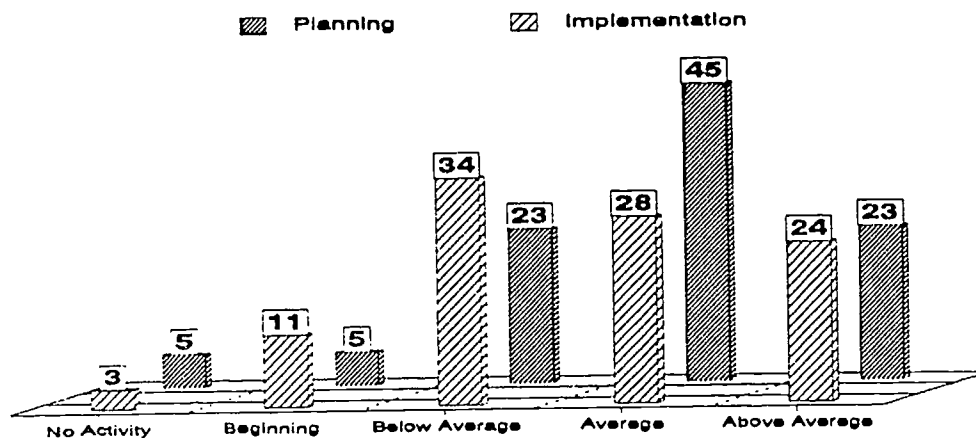


Figure 23  
Evaluation by Grant Consortium  
Score Distribution (Percent)

Each evaluator was asked to assign an overall rating for each consortia. All 19 of the above programmatic elements were to be assessed collectively to determine the rating. As previously described, these data were also tabulated using rating distribution rather than relying upon numeric averages. The results are presented in Figure 22.

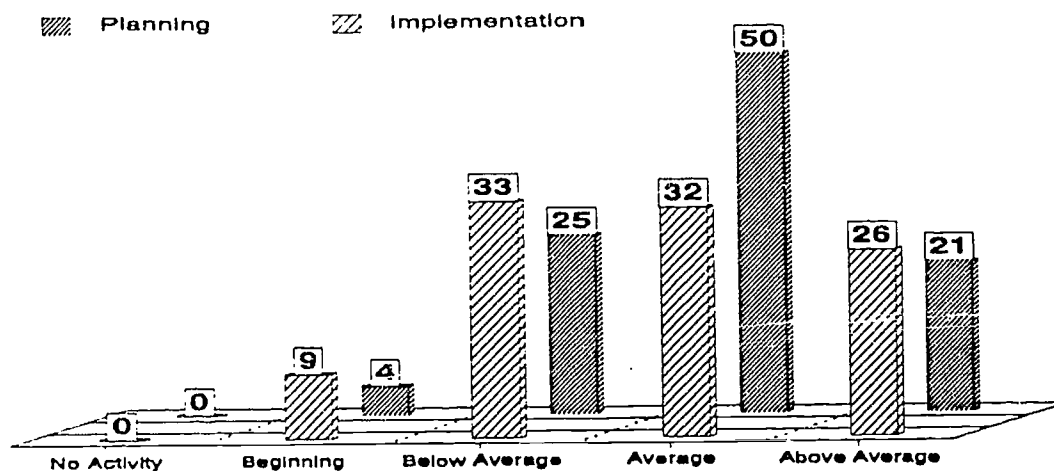


Figure 24  
Overall Score Assigned by Evaluators  
Score Distribution (Percent)

### III. Programmatic Summary and Representative Activities

The purpose of the Tech Prep grants was to provide funds to consortia of LEAs and post secondary education institutions for the development and operation of instructional programs which fostered increased collaboration between secondary, post secondary, and business/industry partners. Two types of grants were awarded, planning and implementation. Each consortia was also asked to prepare a two page executive summary highlighting activities and accomplishments resulting from the year's Tech Prep grant. These were submitted at the time of the live presentations described in the previous section. Each executive summary is reproduced in Appendix A. Each consortia also provided an abbreviated budget summary sheet for the year's activities. The consortia were not provided with any prescriptive format for the executive summaries or the budget sheets.

Contracted personnel reviewed the executive summaries and budget summary sheets provided by each Tech Prep consortia. Executive summaries were reviewed by two reviewers working independently to identify salient programmatic characteristics, and representative activities across all consortia. Budget summary sheets were reviewed to determine funding patterns and to compare consortia expenditures with grant funding requests.

The information presented in this report is based upon review of the executive summaries and budget sheets and was drawn only from the information provided by each consortia. Contract personnel were not present at any panel review meetings, nor did they contact any consortia as part of this contract. Therefore, the scope of the observations presented herein is limited. As such, omissions which may occur are attributed to the fact that, by their nature, executive summaries present only global or generalized statements of program activities. Likewise, budget summary sheets present the lowest level of detail describing expenditure categories. As such, the material presented can provide only limited interpretation of Tech Prep activities during the period evaluated.

#### Funding

During the 1992/93 school year, 45 Tech Prep Consortia were funded through Title III of the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 (Perkins Act). A total of 18 requests for planning grants were received from which 10 were selected for funding. Another 53 consortia requested funding for continued implementation of previously planned or partially implemented Tech Prep programs. From that number, 35 were selected for funding. In total, 73 LEAs and secondary schools participated in Perkins Act-funded Tech Prep planning or implementation projects during 1992/93. Thirty-seven community colleges participated in consortia. Some community colleges participated simultaneously in both planning and implementation

projects. A total of \$2,810,370.00 were allotted from Perkins Act funds. Planning grants totaled \$424,730.00 while implementation grants totaled \$2,385,640.00. Figure 25 presents the funding distribution requests by secondary and post secondary consortia members.

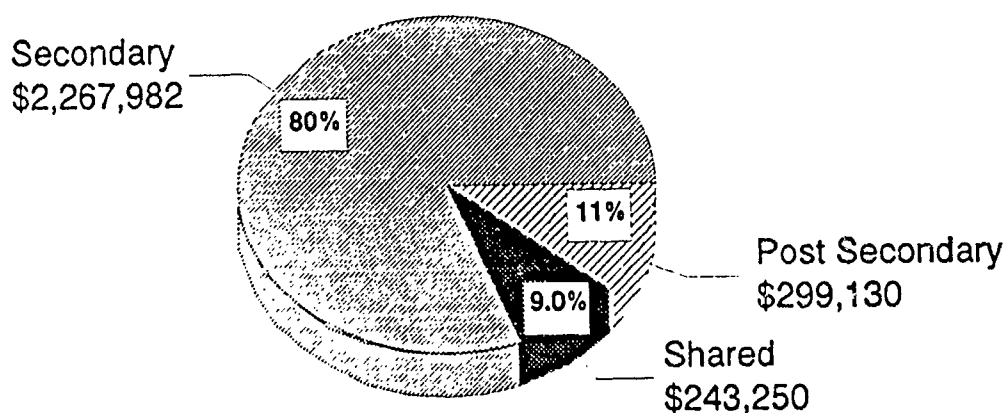


Figure 25  
1992-93 Tech Prep Consortia Funding

Because the budget summary sheets provided by each consortia member varied greatly in format, a detailed analysis by the contracted personnel was not possible. Therefore, four generalized categories for expenditures were developed. These categories were Salaries, Purchased Services, Curriculum/Instructional Material, and Equipment. The Salaries category included funds for direct personnel as well as substitute pay, stipends, and fringe benefits. Purchased Services included workshop/seminar expenses, printing, marketing, and other expenses not directly related to instruction. Curriculum Materials included both hard copy materials such as texts as well as computer software. The fourth category, Equipment, included both instructional

material as computers used both in classroom delivery as well as for counseling purposes. Figure 26 presents these categories as percentages of the whole for planning grant expenditures. Figure 27 presents these categories for implementation grant expenditures.

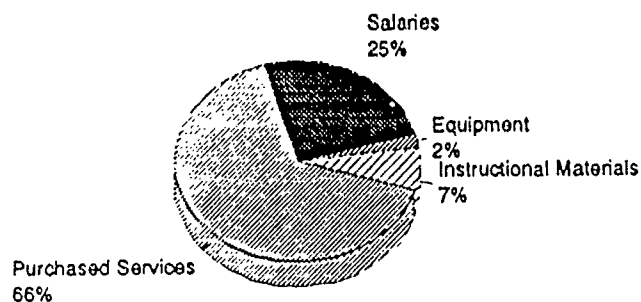


Figure 26  
Planning Grant Expenditures

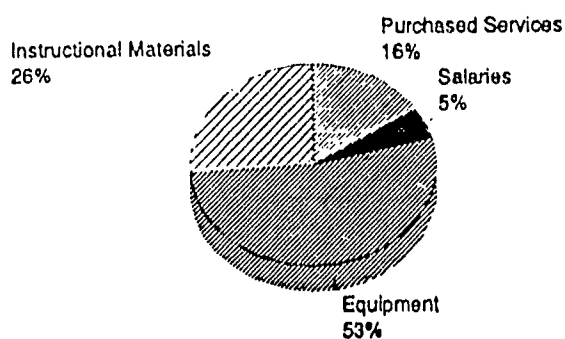


Figure 27  
Implementation Grant Expenditures

Because the provided budget summary sheets also did not provide consistent breakdowns of secondary vs. post secondary spending, a complete analysis was not possible. However, a review of year end budget summaries which did include a clear secondary vs. post secondary revealed that post secondary funding did not exceed the percentages in Figure 25 (above). An analysis of the year-end summaries which did include expenditure division between secondary and post secondary consortia members is presented in Figure 28. However, because the budget summaries were inconsistent in format, no definitive conclusions can be drawn.

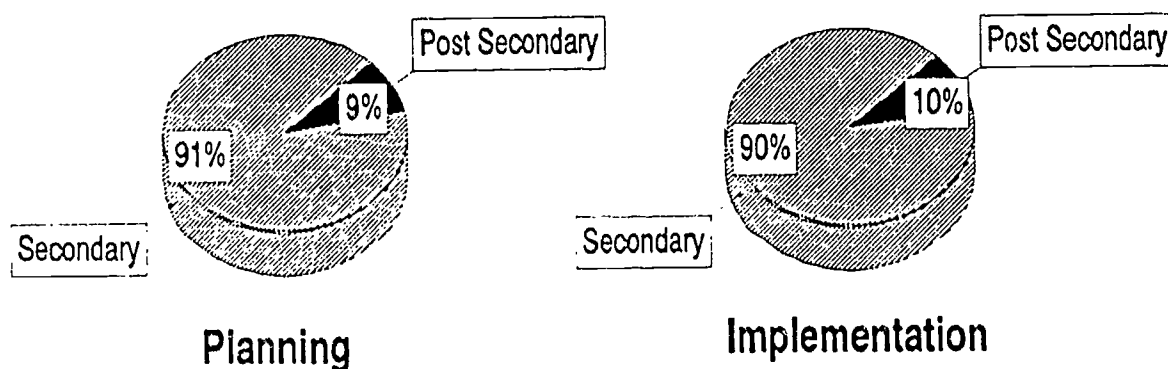


Figure 28  
Comparison of Secondary vs.  
Post Secondary Expenditures

An additional analysis was performed to determine funding patterns over the three year period in which federal funds for Tech Prep programs have been available through the Perkins Act. The intention for this analysis was to determine if consortia which had received planning grants were subsequently funded in the following year with implementation grants. That analysis revealed no consistent funding pattern to suggest that planning consortia were immediately eligible for a subsequent implementation grant. In some instances, such was the case. However, in more instances, a lapse of at least one year between planning and implementation funding was observed. In some instances, consortia received implementation funding without having previously received planning grants. In other instances, consortia which had received planning grants earlier have yet to be awarded implementation grants. Evidence was also observed to indicate that some consortia experienced a lapse of one year between implementation grants.

## General Activities Review

The executive summaries provided by each Tech Prep consortia which received planning and implementation grants were reviewed to determine general categories of activities for the 1992/1993 program year. A summary listing of that review is presented in Table 4. This is not an exhaustive list of all activities which were pursued by funded Tech Prep consortia during the 1992/1993 program year, but represents only activities which were reported in the executive summaries. It is reasonable to assume that this listing represents major activities.

Table 4  
Examples of Tech Prep Funded Activities

Activity	Representative Examples
Curriculum Development	Principles of Technology curriculum and labs Technical Math curriculum and labs Applied Communications curriculum Applied Biology/Chemistry curriculum Food Science curriculum Small Business/Entrepreneurship curriculum
Computer Technology Enhancements	Computer-aided Design (CAD) Computer-aided Manufacturing (CAM) Information Processing Electronics Labs Action Technology Labs Land Cad Hardware and software upgrades
Curriculum Improvements	Elimination of General Track Horizontal and vertical curriculum alignment Comprehensive curriculum reviews Elimination of General Math and Consumer Math Curriculum Articulation Joint selection of textbooks and software Advanced placement agreements Phase I - VOCATS comparison for Community College curriculum Youth apprenticeship programs



Activity	Representative Examples
Business Involvement	Steering Committee memberships Curriculum review teams Staff development assistance for teachers, counselors, and students Site-based learning opportunities for students Scholarships for post secondary education
Staff Development	Attend state and national Tech Prep conferences Local, regional, and state curriculum integration Adoption of Total Quality Management programs Workplace tours Development of collaborative teaching strategies for Principles of Technology Applied Communication Higher Order Thinking Skills CAD Training Reading in the Content Areas Writing Across the Curriculum Cluster Tours of Community College Associate Degree programs Teacher internships in business
Marketing Materials Development	Newspaper ads Magazine ads Billboards Brochures Video tapes Mugs, T-shirts, pencils, etc. Banners Tech Prep Expos Integrated vocational-academic education seminars/field days
Guidance Services	Courses of Study Four-year Education Plans developed Computerized Occupational Information Systems Workplace Internships identified Tech Prep Guidance Handbooks developed Tech Prep Registration Packets designed and implemented Career Planning Portfolios designed



## Programmatic Review - Planning

The executive summaries provided by each Tech Prep consortia which received planning grants were reviewed to determine general thematic areas. Because consortia at the planning stage are not engaged in the presentation of instructional components of Tech Prep, the review of the executive summaries focused on common activities directed at establishing infrastructure and developing future programmatic direction.

A major emphasis which emerged across all consortia was the establishment of steering committees and subcommittees. In all cases, the steering committees consisted of the LEA superintendent and the community college president. Most generally, members from business/industry or local chambers of commerce were included as well. Subcommittees most commonly mentioned were curriculum development, student services, marketing/promotion, student services, and evaluation. Some consortia hired either part-time or full-time Tech Prep coordinators. These coordinators provided assistance to both academic and vocational faculty who were interested in exploring Tech Prep.

Marketing and promotion was another major emphasis of the Tech Prep planning consortia. Many consortia focused on broad awareness campaigns designed to spur interest and support from the community. Many emphasized the development of brochures, course of study materials, and career planning guides designed to promote Tech Prep among eighth grade students. Several consortia chose to build a marketing strategy around a specific theme. These included "Great Minds Think Ahead" and "Make the Connection - Get Tech Prep."

Several consortia worked to identify articulation in specific areas. One consortium developed three generalized career areas, Engineering, Industry, and Agriculture; Health and Human Services; and Business and Marketing. Faculty teams were formed to develop course requirements and alignments in these areas. Other consortia conducted curriculum analyses designed to identify equipment and instructional materials needs.

Collaboration efforts between secondary and post secondary were emphasized by some consortia. These efforts included the development of curriculum matrices and combined staff development activities such as attendance at the state-wide Tech Prep conference. One collaboration effort was targeted toward identifying a method whereby some secondary vocational education classes would be held at the community college and would be attended by secondary students. Another often cited collaboration effort was the identification of a system whereby secondary Tech Prep students who had completed specific high school classes could receive advanced placement standing for post secondary course work.

In summary, executive summaries from Tech Prep planning grant recipients revealed that consortia were consistent in their approach to the planning effort. Programmatic structures were established, marketing strategies were developed and

promotional programs were implemented, and initial collaboration between secondary and post secondary personnel began. Few specific examples, however, were provided to reflect changes in student guidance and counseling beyond that provided prior to Tech Prep. Also, few specific examples of staff development activities were provided other than attendance at the state-wide Tech Prep conference.

### **Programmatic Review – Implementation**

The executive summaries provided by each Tech Prep consortia which received implementation grants were also reviewed to determine general thematic areas. Because consortia at the implementation stage are engaged in the presentation of instructional components rather than on broad planning activities, the review of implementation summaries focused on identifying more detailed examples how the consortia are implementing their programs.

While the planning grant executive summaries lent themselves to the process of identifying programmatic themes and activities, the executive summaries submitted by implementation grant recipients did not yield such clear patterns. This may be attributed to the fewer number of planning grants (ten) compared with the greater number of implementation grants (35). Additionally, the planning activities shared a central purpose to begin initial steps toward Tech Prep while the implementation consortia which had already completed a substantial amount of their planning efforts. The implementation consortia, therefore, directed their efforts toward the process of putting their previously planned programs into place. As such, their activities were widely diverse and represented the wide latitude each consortia was allowed in the development of consortia-specific and locally interpreted Tech Prep programs. A few general observations can be made from the summaries, however.

Collaboration. The material reviewed referred only infrequently to the role that the post secondary partners played in the implementation process. Post secondary involvement was most often described in terms of identifying courses for which advanced placement in post secondary courses might be offered. From the material reviewed it was unclear whether such advanced placement would be granted in the form of post secondary credit which would be credited toward an associate degree or whether it meant that the student would be expected to take other post secondary course work at a higher level, i.e., the student would be expected to complete a full associate degree program of 60 semester hours (or equivalent) even though advanced placement was granted. Courses cited or considered for advanced placement included Business Law, Computer Science I and II, Accounting, among others.

Another example of collaboration was cited by one consortia. A vocational center/laboratory was established on the campus of the community college. Secondary students were allowed to use the facility for courses in geriatrics, cosmetology, electronics repair, and electrical trades. Teaching responsibilities were shared by both the secondary and post secondary faculty.

One consortia described a collaboration effort between secondary and post secondary personnel. To more fully integrate a seamless continuation of study from the secondary Tech Prep program to the post secondary course offerings, the consortia established a textbook review team of both secondary and post secondary personnel. The team then reviewed and selected high school texts in marketing and business education that would mesh more closely with texts used at the local community college. This was cited as reducing content redundancy for the students.

Collaboration with business and industry was often mentioned. The most frequently form of collaboration appeared to be internships in local business for secondary teachers. Several consortia also listed active involvement with local Chambers of Commerce. Some reported a close relationship with Chamber staff in charge of workforce preparedness. One consortia reported that the local Chamber of Commerce was administering a scholarship for Tech Prep students. The scholarship pays \$500.00 per year for two years of post secondary course work for students who participate in four years of secondary Tech Prep course work with a grade point average of 85 or better.

Staff Development. Workshop attendance was overwhelmingly the most frequently cited method of staff development. All consortia were represented at the state-wide conference. Several consortia also produced individual workshops such as a one-day workshop for principals, assistant principals, and curriculum coordinators to review the state of integration at various Tech Prep locations.

Several consortia described training activities which included both secondary and post secondary personnel. These included contracted presentations in cooperative learning, learning styles, the Total Quality Classroom, and Workforce Readiness for the 21st Century.

Several consortia cited secondary teachers being granted leave for site visits to local businesses or to other educational institutions. Business and English teachers were most frequently named as participating in such efforts. One consortia developed a "back to industry" program with the local Chamber of Commerce, local businesses, and the community college. Through this program secondary teachers will be offered summer internships with local business to observe the needs of local employers. Another consortia allowed secondary and post secondary teachers to participate in a week-long industry internship through PROJECT R.E.A.C.H. (Researching Educational Areas in Corporate Habitats).

Guidance and Counseling. The most often listed guidance and counseling activity was the development of four year educational plans for secondary students. No mention of post secondary counseling was made except in the form of reviewing counseling programs designed for 8-12 grade students.

Some consortia described the development of a K-14 guidance plan. One plan includes career exploration activities, interest and aptitude testing, informational meetings

for students and parents, student tours of various local businesses and industries, goal setting workshops for students, and career planning activities. A component of the program includes a shadowing program using community (non-school) mentors. Other components include a health careers information workshop jointly developed with the University of North Carolina at Chapel Hill and a senior day at the local community college.

Another consortia cited the lack of a comprehensive career guidance program for students from the secondary to the post secondary level as the impetus for the development of system-wide guidance services. The LEA and community college counseling personnel developed the plan which outlines the transition of career guidance services in grades 8-14. Additional focus was provided for career guidance services for students in grades 11 and 12 to ensure their successful transition from high school to post secondary education.

One consortia provided specific workshops for counselors. Middle school, high school and community college counseling staff participated in several programs. A specific target of the workshops was to increase counselors' knowledge and use of labor market information related to Tech Prep counseling and career choice.

Curriculum Development. By far the most often cited activity was the purchase of instructional material and equipment. Principles of Technology was overwhelmingly the most frequently listed course addition or upgrade. Several consortia also purchased applied academic modules such as Applied Communication, Technical Math, and Applied Science (Biology/Chemistry, Food Science, etc.). From the executive summaries it was unclear if these course materials would be integrated into existing courses or new course offerings developed. However, in instances where additional detail was provided, Applied Communication was often described as an addition to English classes. One consortia described a two-semester period in which a secondary English teacher worked with the post secondary counterpart to fully integrate the Applied Communication components at both levels. The result was cited as providing a continuum of study for the student.

Teacher pairing was frequently cited as a means to more fully integrate vocational and academic curricula. Such pairing included agriculture and science, business and English, home economics and social studies, and trade and industry and mathematics. Another approach listed by some consortia was team teaching. Two consortia described a two-class period block (back-to-back one hour periods) during which English and business would be simultaneously taught to students. Under the plan, the academic and vocational teachers were to develop the course materials for the program.

Marketing. Marketing Tech Prep was included by all consortia as a major effort. The methods most commonly mentioned were presentations to business/industry, the Chamber of Commerce, students, and parents. Marketing materials developed and prepared included public service announcements on radio and television, newspaper advertisements, purchase of public billboards, and printing brochures. The brochures

were targeted to students in the 8th grade and their parents. Several consortia also purchased pencils, baseball caps, drink holders, plastic cups, and banners which were distributed at counseling sessions, county fairs, and other public activities. Many consortia also indicated they had produced an informational video which was used by counselors to familiarize students and parents with Tech Prep.

Curriculum matrices were also often listed as marketing materials as well. These were included with student report cards mailed to parents of 8th grade students in some consortia. One consortia provided this information to the public by printing it in space purchased in local newspapers.



#### IV. Conclusions and Summary

Tech Prep is described in North Carolina as a focused, sequential six-year course of study designed to meet the need for high school graduates to have greater academic rigor and a stronger technical educational foundation. It is the program's intent that, through a blending of higher-level academic and vocational/technical secondary courses, students will be prepared for advanced courses required by two-year technical and community college programs, which in turn prepares workers for increasingly sophisticated occupations. At present, the DPI and DCC administer federally-funded grants to Tech Prep consortia based upon competitive proposals received from all interested local education agencies (LEAs) who have developed agreements with community colleges or other post secondary institutions. A program which meets the state-established guidelines for such consortia must include a 2 + 2 + 2 year educational program consisting of two years of secondary preparatory course work (grades 9 and 10), two years of occupational/technical-specific and advanced academic secondary course work (grades 11 and 12), followed by two years of post secondary course work leading to the associate degree or certificate of completion.

DPI and DCC personnel identified 19 criteria which must be met to qualify for Tech Prep funding. These criteria (see Table 3, p. 7) were derived from statements included in the Request for Proposals (RFP) distributed in spring, 1992. The proposals received in response to that RFP were evaluated to determine which consortia would be funded during the 1992-93 school year. From that evaluation, ten consortia were awarded planning grants and 35 consortia were awarded implementation grants.

This report summarized activities undertaken by the North Carolina Department of Public Instruction (DPI) and the North Carolina Department of Community Colleges (DCC) to review and evaluate the state's Tech Prep programs which received funds through Title III of the Carl Perkins Vocational Education and Applied Technology Act of 1990. Those activities included regional meetings at which each of the 45 funded Tech Prep consortia gave brief oral presentations highlighting the year's activities. At those meetings representatives of the DPI and DCC, along with non-state government personnel, evaluated programmatic effectiveness on 19 evaluation criteria. Other activities included a review of executive summary and budget sheets by third party contractors. This section presents conclusions and recommendations drawn from those activities and described in earlier sections of this report.

#### Conclusions

Evaluation Process. Some uncertainty associated with the development of the evaluation process (see previous sections) complicates drawing conclusions definitive conclusions about the 1992-93 Tech Prep activities. Since the third party personnel were not present at the panel review meetings, no information other than the evaluation sheet

completed by each review panel member was available for analysis. As such, no explanatory reasons were available to offer additional insight into the rationale for any particular rating assigned to any criteria. This was further complicated by the lack of prescribed standards upon which the ratings were assigned by individual panel members. Additionally, since the executive summaries provided by each consortia varied greatly in format and detail, little corroborating insight was possible from that source. These factors limit the generalizability of the data presented in this report. Future evaluation models should address these shortcomings.

It should be noted that, as a whole, the DPI, DCC, and NCTPLC evaluators rated most elements of Tech Prep consortia activities as average or above average. This section describes the results of the third party evaluation of materials and data gathered through the evaluation process. A "rule of exception" was observed in the development of this section, i.e., exceptional findings which represent deviation from expectations are presented rather than relying on findings which correspond to expectations or which represent instances where no potential programmatic problems may exist. As such, this section presents findings which identify potential problem areas within the 1992-93 Tech Prep program.

Evaluation Summary. Based upon analysis of the evaluations performed and collected at each of the regional panel review meetings, several observations may be made. As previously described, the evaluation included both quantitative and qualitative ratings, i.e., No Activity or Beginning were quantitative, while Below Average, Average, and Above Average suggested a more qualitative nature. A Not Applicable rating was included, but was not selected by any of the review panel members. The assumption is that all criteria were applicable to all consortia. From this flows an additional assumption that a rating of No Activity would be interpreted as a negative rating. Otherwise, the Not Applicable would have been used to convey that no activity was expected. Similarly, a Beginning rating would appear appropriate for a planning consortia, but may be interpreted as less appropriate for an implementation consortia. With these assumptions in mind, the following conclusions can be drawn.

Examining the quantitative ratings, a significant number of the ratings are at expected levels of average or above average. However, it appears that among the planning consortia some criteria were found to be inadequate by the review panel members. Post secondary activity was rated low in collaboration, curriculum development, and staff development. On average, ten percent of the post secondary collaboration efforts were rated as No Activity, while 7% were rated as Beginning after a full year of planning. Similarly, 17% of the post secondary curriculum development efforts were rated No Activity, and 10% received Beginning ratings. Staff development at the post secondary level was rated as No Activity 17% of the time, while receiving an additional 10% at the Beginning level. By contrast, other categories in each of these three areas were rated No Activity 3% or less of the time. Taken in combination, these findings suggest that post secondary effort in Tech Prep has yet to meet that of the secondary units. This suggestion is further strengthened through the analysis of the budget

information. Post secondary institutions requested only 13% of the grant funds, and post secondary expenditures were around 10%.

Activities to establish program services for special populations by planning consortia were also rated somewhat low by panel members. A No Activity rating was assigned 13% of the time, while Beginning was chosen 17% of the time. These levels appear to be lower than would be expected given the emphasis traditionally placed on such services in other vocational education-based programs. At a minimum, one would have expected that there would be no No Activity ratings since similar requirements are in place regarding funds received from other provisions in the Perkins Act.

Among implementation consortia, the quantitative ratings were similar. Post secondary activity was rated low in collaboration, curriculum development, and staff development, business and industry collaboration was often cited as No Activity, and programs services for special populations frequently received No Activity marks. On average, eighteen percent of the post secondary collaboration efforts were rated as No Activity, while 10% were rated as Beginning. Similarly, 24% of the post secondary curriculum development efforts were rated No Activity, and 9% received Beginning ratings. Staff development at the post secondary level was rated as No Activity 23% of the time, while receiving an additional 14% at the Beginning level. With the exception of collaboration with business and industry, other categories in each of these three areas were rated No Activity 3% or less of the time. These findings also suggest that post secondary Tech Prep implementation efforts have yet to meet those of the secondary units. This suggestion is further strengthened through the analysis of the budget information. Post secondary institutions requested only 10% of the grant funds, and expenditures followed that level. This suggests that the post secondary units are assuming that little restructuring of current academic programs and services will be required to accommodate future Tech Prep students. This philosophy was perhaps best summed by one post secondary institution which requested no funds "only quality students."

Based upon the qualitative ratings, most criteria were rated as either average or above average among all consortia. Purposes addressed (43%), grant objectives addressed (39%), articulation (31%) and marketing strategies (39%) often received Above Average ratings. Notable exceptions, however, were collaboration with business and industry, curriculum development in academic education and post secondary institutions, staff development for post secondary faculty, and program services for special populations. Among planning consortia, articulation efforts received Below Average ratings 28% of the time, as did course of study development activities.

Collaboration with business was rated Below Average 31% of the time. This item was often cited in the executive summaries as a notable accomplishment. Among all planning consortia, business and industry members were listed as serving on steering committees. Several consortia also cited business and industry internships or cooperative agreements which allowed teachers to take short tours at local businesses. In some



instances, business members were serving as community mentors or adjunct teachers. In several other instances, a close relationship with the local Chamber of Commerce was described. This disparity between evaluator ratings and self-described activities requires additional analysis. It suggests that the form of business collaboration expected by panel members differs from the collaborative model interpreted by Tech Prep consortia.

Academic education curriculum development efforts among planning consortia was also rated below average a majority of the time (48%). From review of the executive summaries this appears to be a state-wide shortfall in the Tech Prep effort. While the purchase of courseware such as Principles of Technology or Applied Communications/Math, etc. was often cited as evidence of curriculum, seldom was there mention of academic education development efforts other than to insert an applied academic module into an existing course (e.g., Applied Communication module inserted into an English class). This suggests that Tech Prep is remaining more vocational education-focused than the stated intent would imply. Further study of this may reveal any underlying barriers which continue to separate academic and vocational education.

Staff development also received high percentages of Below Average ratings. Among planning consortia staff development for teachers was rated such 37%, counseling staff development received Below Average ratings 39% of the time, and the Below Average frequency among post secondary counselor was 27%. Similar ratings were given for implementation consortia (teachers (29%), counselors (33%), post secondary (23%). The most frequently cited form of staff development in the executive summaries was workshop attendance. While the workshops were often not described in detail, their nature appeared to be generic rather than specific to Tech Prep or its principles. An exception was attendance at the state-wide conference "High Schools That Work" which was devoted to Tech Prep. However, rarely were follow-up activities described. Additionally, workshops such as Train the Trainer or Quality Classrooms were often mentioned. While these are undoubtedly laudable subjects, it was not clear how the content of such workshops was meant to promulgate the Tech Prep principles of collaboration and innovative technical preparation classrooms. Additional analysis is required to determine a systematic track for staff development.

As was found in the quantitative ratings, program services for special populations also received an unexpectedly high frequency of Below Average ratings among both planning (33%) and implementation (33%) consortia. As reasoned previously, due to the emphasis placed on such programs by other funding sources, this finding runs counter to intuition. Given the finding both in quantitative and qualitative ratings, additional evaluation and analysis is needed to identify how these services are failing to meet their purposes.

The marketing strategies of implementation consortia were rated Below Average 35% of the time by review panel members. This finding, too, was somewhat surprising. Based upon activities cited in the executive summaries, almost all consortia spent a great deal of time preparing marketing programs. However, some explanation may be offered when the nature of the programs is examined. The most frequently cited marketing effort

was the development of a course of study and distributing it to eighth grade students. While this may increase the number of potential enrollees in Tech Prep, it suggests a slow philosophical change strategy. It increases the number of students, but does little to inspire a community ground swell of support for academic change. Though several consortia listed other marketing activities such as ball caps, pencils, video tapes, etc., these, too, appeared geared toward increasing numbers of students rather than to increasing support for Tech Prep as an educational reform initiative. To further clarify what activities might be more in keeping with state-wide implementation of Tech Prep, further study and identification of marketing strategies is required.

The frequency (34%) of Below Average ratings assigned to evaluation activities of implementation consortia suggests a need for improved programmatic direction in Tech Prep. The amount of resources in time, personnel, and money which have been dedicated to Tech Prep programs suggests that evaluation of their success would be paramount. However, from information included in the executive summaries, little can be said of either the nature or impact of evaluation programs designed and conducted by individual consortia. This absence is further highlighted by the lack of a clearly defined evaluation model at the state level. Reviews of prior years' Tech Prep activities have centered on numbers of students, i.e., enrollments by race and gender or specific course enrollment numbers. This year represents a first attempt at a state-wide qualitative evaluation. However, as described at the beginning of this section, the process was subject to some methodological threats. Therefore, to address the low evaluation ratings assigned to individual consortia, as well as developing a methodologically sound state-level evaluation process, further research and analysis is required.

## Summary

In summary, Tech Prep appears to enjoy a thematic consistency with other educational reform initiatives. In many instances, especially noticeable in the planning grant activities, Tech Prep was merging with programs such as Quality Classroom and total educational integration. Collaboration with community programs also appeared often in the descriptions of Tech Prep. For example, several consortia cited working with the Chamber of Commerce's Workforce Preparedness program. These suggest that Tech Prep is adaptable to a variety of local interpretations. However, while this provides positive support for Tech Prep implementation at the local level, no clear evidence emerged which demonstrated a consistent state-wide theme. As such, several observations can be made which may suggest the need for additional analysis and consideration in future Tech Prep programmatic evaluations.

First, a general lack of state-wide direction was observed at many points in the preceding sections. As was discussed in Section II, funding patterns for movement from the planning stage to the implementation state was inconsistent. This suggests that some consortia have engaged in planning activities, but may not continue with activities because of lack of follow-on funding. While each consortia pledges to continue the Tech Prep effort irrespective of continued funding, other factors are undoubtedly considered

when those secondary funding sources are difficult to obtain. In short, the lack of follow-on funds may serve to limit the general promulgation of the Tech Prep philosophy across the state.

Another point which suggests some lack of state-level direction is highlighted in the ratings given by review panel members during the regional meetings. Those meetings were based upon evaluation of 19 programmatic elements which were drawn from DPI's and DCC's request for proposal document. The assumption was made that those elements would be readily apparent to the consortia as the most salient for Tech Prep activities. However, in several instances such as collaboration with business, the consortia did appear to be very actively involved with local business based upon descriptions in the executive summaries. Yet, when those activities were evaluated by panel members, those consortia activities received Below Average ratings 31% of the time. This suggests that state-level expectations in such areas may be inadequately communicated to local consortia. Future analysis and evaluation of the communication paths and methods in such areas may provide a greater understanding of these discrepancies.

The amount and distribution of individual grants between secondary and post secondary consortia members might also be considered for additional analysis. At present the grant amounts are determined by a formula based upon the number of LEAs in each consortia. This appears to imply that the primary focus of the Tech Prep movement is to effect a change solely in the secondary school unit. The implication appears strengthened when funding requests and expenditures from the community colleges are only 9% - 13% of total grant allocations. While several consortia appeared to adopt the policy that, since no secondary students have completed a Tech Prep course of study as of yet, the post secondary institutions does not need to address any curriculum changes. This seemed evident also in the low ratings assigned to post secondary efforts in collaboration, curriculum development, and staff development. All these were rated No Activity with significant frequency. Additional analysis might examine if this is consistent with the philosophy of Tech Prep which is directed more toward developing a qualified technical employee after two years of post secondary work than toward preparing secondary students for immediate entry into the work place. Additional evaluation and state-level policy assessment might prove helpful in determining a more equitable funding formula.

As noted earlier in this report, the evaluation process described in the report represents a departure from prior years' Tech Prep reporting methods. Previous reports have been focused on more quantifiable data such as numbers of students grouped by race and gender, enrollment totals in specific courses, or number of personnel involved. By contrast, the methods and results reported here attempted to assign a qualitative rating to programmatic elements such as collaboration, curriculum development, and staff development. These efforts represent a basic change in reporting requirements. Heretofore, Tech Prep consortia have been expected to provide different types of data for a state-wide, aggregate report. In several instances in this report, data inconsistencies

were noted, and these inconsistencies may reflect the lack of familiarity with the newly expected qualitative report format. As such, additional evaluation methods may be more closely scrutinized and their processes more widely publicized prior to their implementation.

This change in evaluation strategy also appears to suggest a shift in state-level philosophy from seeking Tech Prep programs which primarily emphasize enrollment increase to a philosophy which seeks Tech Prep programs which demonstrate a "value-added" impact on students and their community. This is consistent with the somewhat counter-intuitive finding that review panel members rated marketing efforts Below Average among implementation consortia a majority of the time. Yet, based upon executive summaries, the consortia were very actively engaged in marketing strategies geared overwhelmingly toward enrolling eighth grade students in their Tech Prep courses. These two points, when combined, strengthen the assumption of a philosophical shift at the state-level. If this is indeed the intention of state-level personnel, future policy may require modification to more closely reflect this fundamental change.

APPENDIX A  
INDIVIDUAL CONSORTIA EVALUATION SHEETS

## PLANNING GRANTS

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92P-1  
 Evaluation Date: 6/28/93  
 No. of Evaluators: 4

Consortium Members: Alexander County Schools  
 Catawba Valley Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x		xxx
Grant Objective(s) Addressed				x	x	xx
Collaboration						
Vocational/Technical Education				x	xxx	
Academic Education			x	xx	x	
Student Services			x	xx		x
Post Secondary		x	x	x	x	
Business/Industry			x	x	x	
Articulation (PLANNING ONLY)					x	xx
Tech Prep Course of Study (PLANNING ONLY)					xx	x
Curriculum Development						
Vocational/Technical Education				xx	xx	
Academic Education			x	xx	x	
Post Secondary		x	x		xx	
Staff Development						
Teachers				x		xx
Counselors				xxx		x
Post Secondary		x	x	x		x
Program Services for Special Populations			xx	x		x
Marketing Strategies					xxx	x
Three-year Commitment				x	x	xx
Evaluation by Grant Consortium				x	x	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92P-2  
 Evaluation Date: 6/22/93  
 No. of Evaluators: 3

Consortium Members: Brunswick County Schools  
 Brunswick Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					xx	x
Grant Objective(s) Addressed					xx	x
Collaboration						
Vocational/Technical Education					xx	x
Academic Education					xx	x
Student Services				xx	x	
Post Secondary					xx	x
Business/Industry					x	xx
Articulation (PLANNING ONLY)				x	xx	
Tech Prep Course of Study (PLANNING ONLY)				x	xx	
Curriculum Development						
Vocational/Technical Education				x	xx	
Academic Education				xx	x	
Post Secondary				x	xx	
Staff Development						
Teachers				x	xx	
Counselors				xx	x	
Post Secondary				x	xx	
Program Services for Special Populations		x		x	x	
Marketing Strategies				x	x	x
Three-year Commitment					xx	x
Evaluation by Grant Consortium						x



## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92P-3  
 Evaluation Date: 6/28/93  
 No. of Evaluators: 4

Consortium Members: Burke County Schools  
 Western Piedmont Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	xxx	
Grant Objective(s) Addressed					xxxx	
Collaboration						
Vocational/Technical Education					xxxx	
Academic Education					xxx	
Student Services					xxxx	
Post Secondary				x	xxx	
Business/Industry			x	xxx		
Articulation (PLANNING ONLY)					xxx	
Tech Prep Course of Study (PLANNING ONLY)				xxx	x	
Curriculum Development						
Vocational/Technical Education				xx	xx	
Academic Education				xxx		
Post Secondary		x		xx	x	
Staff Development						
Teachers				xx	xx	
Counselors				xx	xx	
Post Secondary				xxx	x	
Program Services for Special Populations			x	x	x	
Marketing Strategies					xxxx	
Three-year Commitment					xxxx	
Evaluation by Grant Consortium					xx	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92P-4  
 Evaluation Date: 6/23/93  
 No. of Evaluators: 3

Consortium Members: Columbus County Schools  
 Whiteville City Schools  
 Southeastern Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	x	
Grant Objective(s) Addressed				x	x	x
Collaboration						
Vocational/Technical Education				x	xx	
Academic Education				x	xx	
Student Services				x	xx	
Post Secondary				x	x	x
Business/Industry				x		x
Articulation (PLANNING ONLY)				x	x	x
Tech Prep Course of Study (PLANNING ONLY)				x		x
Curriculum Development						
Vocational/Technical Education				xxx		
Academic Education				xx	x	
Post Secondary		x	x	x		
Staff Development						
Teachers				xxx		
Counselors				xx	x	
Post Secondary		x		x		
Program Services for Special Populations				xx	x	
Marketing Strategies				x		xx
Three-year Commitment				x	xx	
Evaluation by Grant Consortium				x	x	x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92P-5  
 Evaluation Date: 6/28/93  
 No. of Evaluators: 4

Consortium Members: Elkin City Schools  
 Surry County Schools  
 Mr. Airy City Schools  
 Yadkin County Schools  
 Stokes County Schools  
 Surry Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	xx	x
Grant Objective(s) Addressed				x	xx	x
Collaboration						
Vocational/Technical Education				x	xx	x
Academic Education				xx	xx	
Student Services				xx	xx	
Post Secondary					xx	x
Business/Industry			xxx	x		
Articulation (PLANNING ONLY)				x	x	xx
Tech Prep Course of Study (PLANNING ONLY)				x	xx	x
Curriculum Development						
Vocational/Technical Education					xxxx	
Academic Education				xx	xx	
Post Secondary				x	xx	x
Staff Development						
Teachers				x	xx	x
Counselors				x	xx	x
Post Secondary			x		xx	x
Program Services for Special Populations		x	xx		x	
Marketing Strategies				xx	xx	
Three-year Commitment					xx	x
Evaluation by Grant Consortium				x	x	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92P-6  
 Evaluation Date: 7-1-93  
 No. of Evaluators: 2

Consortium Members: Gaston County Schools  
 Gaston College  
 NC Center for Applied Textile Technology

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities			x		x	
Grant Objective(s) Addressed			x		x	
Collaboration						
Vocational/Technical Education		x			x	
Academic Education		x		x		
Student Services		x		x		
Post Secondary		x			x	
Business/Industry			x		x	
Articulation (PLANNING ONLY)		x		x		
Tech Prep Course of Study (PLANNING ONLY)		x		x		
Curriculum Development						
Vocational/Technical Education		x			x	
Academic Education			x	x		
Post Secondary		x			x	
Staff Development						
Teachers			x		x	
Counselors		x			x	
Post Secondary		x			x	
Program Services for Special Populations		x			x	
Marketing Strategies			x	x		
Three-year Commitment				x	x	
Evaluation by Grant Consortium		x			x	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92P-7  
 Evaluation Date: 6/22/93  
 No. of Evaluators: 2

Consortium Members: Hoke County Schools  
 Sandhills Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					x	x
Grant Objective(s) Addressed					x	x
Collaboration						
Vocational/Technical Education					x	x
Academic Education					x	x
Student Services					xx	
Post Secondary			x	x		
Business/Industry			x	x		
Articulation (PLANNING ONLY)					x	x
Tech Prep Course of Study (PLANNING ONLY)					x	x
Curriculum Development						
Vocational/Technical Education					x	x
Academic Education		x			x	
Post Secondary				x		
Staff Development						
Teachers					x	x
Counselors					x	x
Post Secondary		x		x		
Program Services for Special Populations		x		x		
Marketing Strategies				x		x
Three-year Commitment					x	x
Evaluation by Grant Consortium				x	x	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92P-8  
 Evaluation Date: 6/23/93  
 No. of Evaluators: 3

Consortium Members: Lenoir County Schools  
 Kinston City Schools  
 Greene County Schools  
 Jones County Schools  
 Lenoir Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities						xxx
Grant Objective(s) Addressed						xxx
Collaboration						
Vocational/Technical Education						xxx
Academic Education						xxx
Student Services					x	xx
Post Secondary						xxx
Business/Industry						xxx
Articulation (PLANNING ONLY)						xxx
Tech Prep Course of Study (PLANNING ONLY)					x	xx
Curriculum Development						
Vocational/Technical Education					xxx	
Academic Education					xx	x
Post Secondary					xx	x
Staff Development						
Teachers					x	xx
Counselors					x	xx
Post Secondary					x	xx
Program Services for Special Populations					x	xx
Marketing Strategies						xxx
Three-year Commitment						xxx
Evaluation by Grant Consortium						xxx

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92P-9  
 Evaluation Date: 6/30/93  
 No. of Evaluators: 4

Consortium Members: Union County Schools  
 Monroe City Schools  
 Union Campus of Anson-Stanly community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					x	xx
Grant Objective(s) Addressed					x	xx
Collaboration						
Vocational/Technical Education					x	xx
Academic Education					x	xx
Student Services					x	xx
Post Secondary					x	xx
Business/Industry				x	x	x
Articulation (PLANNING ONLY)				x	x	x
Tech Prep Course of Study (PLANNING ONLY)				x	x	x
Curriculum Development						
Vocational/Technical Education				x	x	x
Academic Education				x	x	x
Post Secondary			x	x		x
Staff Development						
Teachers					x	xx
Counselors						xxx
Post Secondary					xx	x
Program Services for Special Populations				xx		x
Marketing Strategies						xxx
Three-year Commitment					x	xx
Evaluation by Grant Consortium			x		x	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92P-10  
 Evaluation Date: 6/23/93  
 No. of Evaluators: 3

Consortium Members: Washington City Schools  
 Beaufort County Schools  
 Beaufort County Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x		xx
Grant Objective(s) Addressed				x	x	x
Collaboration						
Vocational/Technical Education				x	x	x
Academic Education				x	x	x
Student Services				x	xx	
Post Secondary		x		x	x	
Business/Industry				x	xx	
Articulation (PLANNING ONLY)			x			xx
Tech Prep Course of Study (PLANNING ONLY)			x			xx
Curriculum Development						
Vocational/Technical Education				x	x	
Academic Education				x	x	
Post Secondary		x			xx	
Staff Development						
Teachers				xxx		
Counselors				xx	x	
Post Secondary		x	x	x		
Program Services for Special Populations				xx	x	
Marketing Strategies					xx	x
Three-year Commitment				x	xx	
Evaluation by Grant Consortium				x	xx	



## IMPLEMENTATION GRANTS

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92I-1  
 Evaluation Date: 6/28/93  
 No. of Evaluators: 3

Consortium Members: Alleghany County Schools  
 Wilkes Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	xx	
Grant Objective(s) Addressed					xxx	
Collaboration						
Vocational/Technical Education				xx	x	
Academic Education				xx	x	
Student Services				xx	x	
Post Secondary			x	x		
Business/Industry			x	xx		
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education				x	xx	
Academic Education				x	xx	
Post Secondary			x	x	x	
Staff Development						
Teachers				x	xx	
Counselors				xx	x	
Post Secondary			xx	x		
Program Services for Special Populations			xx		x	
Marketing Strategies			x	x	x	
Three-year Commitment				x	x	
Evaluation by Grant Consortium					xx	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-2  
 Evaluation Date: 6/30/93  
 No. of Evaluators: 3

Consortium: Anson County Schools  
 Members: Anson Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	xx	
Grant Objective(s) Addressed				xx	x	
Collaboration						
Vocational/Technical Education			x	xx		
Academic Education			xx	x		
Student Services			xx	x		
Post Secondary			xx	x		
Business/Industry		x	xx			
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education			x	xx		
Academic Education			x	xx		
Post Secondary			x	x	x	
Staff Development						
Teachers				xx	x	
Counselors			x	xx		
Post Secondary			x	xx		
Program Services for Special Populations				x		
Marketing Strategies			x	xx		
Three-year Commitment					xx	
Evaluation by Grant Consortium			x	x		

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-3  
 Evaluation Date: 6/29/93  
 No. of Evaluators: 3

Consortium Members: Ashe County Schools  
 Wilkes Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	xx	
Grant Objective(s) Addressed				x	x	x
Collaboration						
Vocational/Technical Education				xx	x	
Academic Education				xx	x	
Student Services			x	xx		
Post Secondary		x	x	x		
Business/Industry		xx		x		
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education				xxx		
Academic Education				xxx		
Post Secondary		xx		x		
Staff Development						
Teachers				xx		x
Counselors				xx	x	
Post Secondary				xx	x	
Program Services for Special Populations				xx		
Marketing Strategies				xxx		
Three-year Commitment					xx	
Evaluation by Grant Consortium				x		x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-4  
 Evaluation Date: 6/29/93  
 No. of Evaluators: 3

Consortium Members: Avery County Schools  
 Mountain Heritage High School  
 Mayland Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities						xxx
Grant Objective(s) Addressed						xxx
Collaboration						
Vocational/Technical Education					x	xx
Academic Education						xxx
Student Services					xx	x
Post Secondary					x	xx
Business/Industry				x	x	x
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					x	xx
Academic Education					x	xx
Post Secondary					x	xx
Staff Development						
Teachers					x	xx
Counselors				x	x	x
Post Secondary					xx	x
Program Services for Special Populations			x			
Marketing Strategies				x	x	x
Three-year Commitment						xx
Evaluation by Grant Consortium					x	x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92I-5  
 Evaluation Date: 6/22/93  
 No. of Evaluators: 3

Consortium: Bladen County Schools  
 Members: Bladen Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				xx	x	
Grant Objective(s) Addressed				x	x	
Collaboration						
Vocational/Technical Education				xx	x	
Academic Education			x	xx		
Student Services			x	xx		
Post Secondary		xx		x		
Business/Industry		xx		x		
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education			x	x		
Academic Education			x	x		
Post Secondary		xx		x		
Staff Development						
Teachers				xx		
Counselors				xx		
Post Secondary		xx		x		
Program Services for Special Populations			xx	x		
Marketing Strategies			x	x	x	
Three-year Commitment				x	x	
Evaluation by Grant Consortium		xx				

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-6  
 Evaluation Date: 6/30/92  
 No. of Evaluators: 3

Consortium: Cabarrus County Schools  
 Members: Rowan-Cabarrus Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities						xxx
Grant Objective(s) Addressed					x	xx
Collaboration						
Vocational/Technical Education					x	xx
Academic Education					x	xx
Student Services						xxx
Post Secondary					xx	x
Business/Industry				x	x	x
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					xxx	
Academic Education					xxx	
Post Secondary				x	xx	
Staff Development						
Teachers					xx	x
Counselors					x	xx
Post Secondary					xxx	
Program Services for Special Populations		x		xx		
Marketing Strategies				x	xx	
Three-year Commitment					x	x
Evaluation by Grant Consortium					x	x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92I-7  
 Evaluation Date: 6/24/93  
 No. of Evaluators: 3

Consortium Members: Carteret County Schools  
 Carteret Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities						xxx
Grant Objective(s) Addressed						xxx
Collaboration						
Vocational/Technical Education				x		xx
Academic Education				x	x	x
Student Services				x	x	x
Post Secondary			x	x		x
Business/Industry			x		x	
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					x	xx
Academic Education					xx	x
Post Secondary		x				xx
Staff Development						
Teachers				x	x	x
Counselors			x		x	x
Post Secondary		x				xx
Program Services for Special Populations			x		xx	
Marketing Strategies					x	xx
Three-year Commitment						xx
Evaluation by Grant Consortium				x		x



## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-8  
 Evaluation Date: 7/1/93  
 No. of Evaluators: 2

Consortium Members: Catawba County Schools  
 Catawba Valley Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					x	x
Grant Objective(s) Addressed					x	x
Collaboration						
Vocational/Technical Education					x	x
Academic Education					x	x
Student Services					x	x
Post Secondary			x		x	
Business/Industry				x	x	
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education						xx
Academic Education					x	x
Post Secondary			x	x		
Staff Development						
Teachers						xx
Counselors						xx
Post Secondary			x	x		
Program Services for Special Populations				x	x	
Marketing Strategies					xx	
Three-year Commitment					x	x
Evaluation by Grant Consortium					x	x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-9  
 Evaluation Date: 6/30/93  
 No. of Evaluators: 3

Consortium: Charlotte-Mecklenburg Schools  
 Members: Central Piedmont Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					x	xx
Grant Objective(s) Addressed					xx	x
Collaboration						
Vocational/Technical Education					xx	x
Academic Education					xx	x
Student Services					xx	x
Post Secondary			x			xx
Business/Industry					x	xx
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					xxx	
Academic Education					xxx	
Post Secondary					xxx	
Staff Development						
Teachers					xxx	
Counselors					xxx	
Post Secondary			x		xx	
Program Services for Special Populations				x	xx	
Marketing Strategies				xx		x
Three-year Commitment						xx
Evaluation by Grant Consortium					x	x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92I-10  
 Evaluation Date: 6/28/93  
 No. of Evaluators: 4

Consortium Members: Cherokee County Schools  
 Clay County Schools  
 Graham County Schools  
 Tri-County Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					xx	xx
Grant Objective(s) Addressed				x		xxx
Collaboration						
Vocational/Technical Education					xxxx	
Academic Education				x	xxx	
Student Services					xxxx	
Post Secondary				xx	xx	
Business/Industry			xx		xx	
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					xx	xx
Academic Education				x	x	xx
Post Secondary				xx	x	x
Staff Development						
Teachers					xxxx	
Counselors					xxxx	
Post Secondary				x	xxx	
Program Services for Special Populations		x	x		xx	
Marketing Strategies					xxx	x
Three-year Commitment					xx	x
Evaluation by Grant Consortium					xx	x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-11  
 Evaluation Date: 6/22/93  
 No. of Evaluators: 3

Consortium Members: Clinton City Schools  
 Sampson County Schools  
 Sampson Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					xx	x
Grant Objective(s) Addressed					x	xx
Collaboration						
Vocational/Technical Education					xxx	
Academic Education					xxx	
Student Services				xx		
Post Secondary				x	x	
Business/Industry			x		xx	
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education				x	x	
Academic Education				x	x	
Post Secondary			x	x		
Staff Development						
Teachers				x	xx	
Counselors				xx	x	
Post Secondary			x	x	x	
Program Services for Special Populations			x	x		x
Marketing Strategies				xx		
Three-year Commitment				x	x	x
Evaluation by Grant Consortium				xx		x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92I-12  
 Evaluation Date: 6/24/93  
 No. of Evaluators: 3

Consortium Members: Craven County Schools  
 Craven Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					xx	x
Grant Objective(s) Addressed					x	xx
Collaboration						
Vocational/Technical Education					x	xx
Academic Education					x	x
Student Services					x	xx
Post Secondary					x	xx
Business/Industry					x	xx
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					xx	x
Academic Education					xx	x
Post Secondary				xx		x
Staff Development						
Teachers					x	xx
Counselors					xx	x
Post Secondary				x	x	x
Program Services for Special Populations				x	x	x
Marketing Strategies					xx	x
Three-year Commitment					x	xx
Evaluation by Grant Consortium					x	x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92I-13  
 Evaluation Date:  
 No. of Evaluators:

Consortium Members: Cumberland County Schools  
 Fayetteville Technical Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					xx	x
Grant Objective(s) Addressed					x	xx
Collaboration						
Vocational/Technical Education					x	xx
Academic Education					x	xx
Student Services					x	xx
Post Secondary					xx	x
Business/Industry					xx	x
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					x	xx
Academic Education					x	xx
Post Secondary				x	x	x
Staff Development						
Teachers					x	xx
Counselors						xxx
Post Secondary				xx	x	
Program Services for Special Populations		x			x	x
Marketing Strategies					x	xx
Three-year Commitment					xx	x
Evaluation by Grant Consortium					x	x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-14  
 Evaluation Date: 6/30/93  
 No. of Evaluators: 3

Consortium Members: Davidson County Schools  
 Lexington City Schools  
 Thomasville City Schools  
 Davie County Schools  
 Davidson County Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	xx	
Grant Objective(s) Addressed					xxx	
Collaboration						
Vocational/Technical Education				x	xx	
Academic Education				xx	x	
Student Services				xx	x	
Post Secondary			x	x	x	
Business/Industry		x		xx		
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education				x	xx	
Academic Education				xx	x	
Post Secondary				xxx		
Staff Development						
Teachers				x	xx	
Counselors			x	x	x	
Post Secondary			xx		x	
Program Services for Special Populations			x	xx		
Marketing Strategies				xxx		
Three-year Commitment					xx	
Evaluation by Grant Consortium				xx		

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-15  
 Evaluation Date: 6/24/93  
 No. of Evaluators: 3

Consortium Members: Durham Public Schools  
 Durham Technical Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	x	x
Grant Objective(s) Addressed				xx	x	
Collaboration						
Vocational/Technical Education			x	xx		
Academic Education			xx	x		
Student Services				xx	x	
Post Secondary		xx		x		
Business/Industry		x		xx		
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education			xx	x		
Academic Education			x	xx		
Post Secondary		xx		x		
Staff Development						
Teachers			x	x	x	
Counselors				xx		x
Post Secondary		xx		x		
Program Services for Special Populations		xxx				
Marketing Strategies				xxx		
Three-year Commitment			x	x		
Evaluation by Grant Consortium			x	x		



## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-16  
 Evaluation Date: 6/23/93  
 No. of Evaluators: 3

Consortium Members: Edgecombe County Schools  
 Tarboro City Schools  
 Edgecombe Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	xx	
Grant Objective(s) Addressed				x	xx	
Collaboration						
Vocational/Technical Education				xx	x	
Academic Education				xxx		
Student Services				xxx		
Post Secondary			x	xx		
Business/Industry				xxx		
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education			x	x	x	
Academic Education			x	xx		
Post Secondary			xx	x		
Staff Development						
Teachers			x	x	x	
Counselors			x	xx		
Post Secondary		x	x	x		
Program Services for Special Populations		x		x		
Marketing Strategies					x	xx
Three-year Commitment				x	x	
Evaluation by Grant Consortium				xx	x	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-17  
 Evaluation Date: 6/24/93  
 No. of Evaluators: 3

Consortium: Harnett County Schools  
 Members: Central Carolina Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	x	x
Grant Objective(s) Addressed					x	x
Collaboration						
Vocational/Technical Education				x	x	x
Academic Education				x	x	x
Student Services					xxx	
Post Secondary				xx	x	
Business/Industry				x	x	
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					xx	x
Academic Education				x	xx	
Post Secondary		xxx				
Staff Development						
Teachers				x	x	x
Counselors					xx	x
Post Secondary		xx			x	
Program Services for Special Populations				xx	x	
Marketing Strategies				x	xx	
Three-year Commitment				x		x
Evaluation by Grant Consortium				x		x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-18  
 Evaluation Date: 6/28/93  
 No. of Evaluators: 4

Consortium Members: Haywood County Schools  
 Haywood Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities			x	xx		
Grant Objective(s) Addressed			xx	x		
Collaboration						
Vocational/Technical Education			x	xxx		
Academic Education			x	xxx		
Student Services			xx	xx		
Post Secondary		xx		xx		
Business/Industry		xx		xx		
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education		x		xxx		
Academic Education			x	xxx		
Post Secondary		xx		xx		
Staff Development						
Teachers				xx	x	
Counselors		x		xx		
Post Secondary		xx		x		
Program Services for Special Populations		xx		x		
Marketing Strategies		x		xxx		
Three-year Commitment				xx	x	
Evaluation by Grant Consortium			xx			

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-19  
 Evaluation Date: 6/29/93  
 No. of Evaluators: 3

Consortium Members: Kings Mountain City Schools  
 Cleveland County Schools  
 Shelby City Schools  
 Cleveland Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					xx	x
Grant Objective(s) Addressed					xx	x
Collaboration						
Vocational/Technical Education					xx	x
Academic Education				x	x	x
Student Services			x	x		x
Post Secondary			x	x		x
Business/Industry					xx	x
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education				x	xx	
Academic Education				x	xx	
Post Secondary			x	x	x	
Staff Development						
Teachers					xx	x
Counselors					xx	x
Post Secondary				x	x	x
Program Services for Special Populations				xx		
Marketing Strategies					xxx	
Three-year Commitment					x	xx
Evaluation by Grant Consortium				xx		

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-20  
 Evaluation Date: 6/28/93  
 No. of Evaluators: 4

Consortium Members: Macon County Schools  
 Southwestern Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	xxx	
Grant Objective(s) Addressed				x	xx	x
Collaboration						
Vocational/Technical Education					xxxx	
Academic Education					xxxx	
Student Services			x	x	xx	
Post Secondary		xx		xx		
Business/Industry			xx		xx	
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					xxxx	
Academic Education				x	xxx	
Post Secondary		xx		x	x	
Staff Development						
Teachers				xxx	x	
Counselors			x	xx	x	
Post Secondary		xx		xx		
Program Services for Special Populations			x		xx	
Marketing Strategies				xxx	x	
Three-year Commitment					xxx	
Evaluation by Grant Consortium				x	x	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-21  
 Evaluation Date: 6/29/93  
 No. of Evaluators: 3

Consortium: McDowell County Schools  
 Members: McDowell Technical Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x		xx
Grant Objective(s) Addressed				x		xx
Collaboration						
Vocational/Technical Education					xxx	
Academic Education				x	xx	
Student Services				x	xx	
Post Secondary			x		xx	
Business/Industry				x	xx	
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education				x	xx	
Academic Education				x	xx	
Post Secondary		x		x	x	
Staff Development						
Teachers				x	xx	
Counselors				x	xx	
Post Secondary		x			xx	
Program Services for Special Populations			x	x		
Marketing Strategies			x	x	x	
Three-year Commitment				x		xx
Evaluation by Grant Consortium				x	x	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92I-22  
 Evaluation Date: 6/29/93  
 No. of Evaluators: 3

Consortium Members: Mitchell County Schools  
 Mayland Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					xx	
Grant Objective(s) Addressed					xx	
Collaboration						
Vocational/Technical Education					xxx	
Academic Education					xx	x
Student Services				xx	x	
Post Secondary				x	xx	
Business/Industry			x	x	x	
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education				x	xx	
Academic Education				x	xx	
Post Secondary				x	xx	
Staff Development						
Teachers				x	x	x
Counselors				xx	x	
Post Secondary				xxx		
Program Services for Special Populations				xx	x	
Marketing Strategies				xx	x	
Three-year Commitment					x	x
Evaluation by Grant Consortium				xx		

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-23  
 Evaluation Date: 6/23/93  
 No. of Evaluators: 3

Consortium Members: Nash-Rocky Mount Schools  
 Nash Community College  
 Edgecombe Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					x	xx
Grant Objective(s) Addressed					x	xx
Collaboration						
Vocational/Technical Education					x	xx
Academic Education					x	xx
Student Services					x	xx
Post Secondary					x	xx
Business/Industry					x	xx
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					xx	x
Academic Education					xx	x
Post Secondary				xx		x
Staff Development						
Teachers					x	xx
Counselors						xxx
Post Secondary					xx	x
Program Services for Special Populations		x	x	x		
Marketing Strategies						xxx
Three-year Commitment						xx
Evaluation by Grant Consortium						xx



## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-24  
 Evaluation Date: 6/23/93  
 No. of Evaluators: 3

Consortium Members: Onslow County Schools  
 Coastal Carolina Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					x	xx
Grant Objective(s) Addressed					x	xx
Collaboration						
Vocational/Technical Education					xx	x
Academic Education					xx	x
Student Services					xx	x
Post Secondary					x	xx
Business/Industry				x	x	x
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education				x	xx	
Academic Education				x	xx	
Post Secondary				x	x	x
Staff Development						
Teachers					xxx	
Counselors					xxx	
Post Secondary		x			xx	
Program Services for Special Populations		x		x	x	
Marketing Strategies					x	xx
Three-year Commitment					xx	x
Evaluation by Grant Consortium					x	xx

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-25  
 Evaluation Date: 6/30/93  
 No. of Evaluators: 3

Consortium Members: Orange County Schools  
 Alamance Community College  
 Durham Technical Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				xxx		
Grant Objective(s) Addressed			x	xx		
Collaboration						
Vocational/Technical Education			xx	x		
Academic Education			xx	x		
Student Services		x		x	x	
Post Secondary		xx		x		
Business/Industry		xx		x		
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education			x	xx		
Academic Education			x	xx		
Post Secondary		xx		x		
Staff Development						
Teachers			x	xx		
Counselors			x	xx		
Post Secondary		xx	x			
Program Services for Special Populations		x	x	x		
Marketing Strategies				xxx		
Three-year Commitment				xx		
Evaluation by Grant Consortium			x	x		

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-26  
 Evaluation Date: 6/24/93  
 No. of Evaluators: 3

Consortium: Pitt County Schools  
 Members: Pitt Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					x	xx
Grant Objective(s) Addressed					x	xx
Collaboration						
Vocational/Technical Education					xx	x
Academic Education					xx	x
Student Services					x	xx
Post Secondary					xx	x
Business/Industry						xxx
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					xxx	
Academic Education					xxx	
Post Secondary					xxx	
Staff Development						
Teachers					xxx	
Counselors					x	xx
Post Secondary					xxx	
Program Services for Special Populations					xx	
Marketing Strategies					x	xx
Three-year Commitment						xxx
Evaluation by Grant Consortium				x	x	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 92I-27  
 Evaluation Date: 6/29/93  
 No. of Evaluators: 3

Consortium: Polk County Schools  
 Members: Isothermal Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	x	x
Grant Objective(s) Addressed				xx		x
Collaboration						
Vocational/Technical Education				xx		x
Academic Education				x	x	x
Student Services		x		x		x
Post Secondary		xx				x
Business/Industry			x	x		x
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education				x	x	x
Academic Education					xx	x
Post Secondary		xx				x
Staff Development						
Teachers					x	xx
Counselors			x	x		x
Post Secondary		xx				x
Program Services for Special Populations			xx			
Marketing Strategies			x	x		x
Three-year Commitment					xx	
Evaluation by Grant Consortium			x	x		

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-28  
 Evaluation Date: 6/24/93  
 No. of Evaluators: 3

Consortium Members: Reidsville City Schools  
 Rockingham Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					x	xx
Grant Objective(s) Addressed					x	xx
Collaboration						
Vocational/Technical Education					xx	x
Academic Education					xx	x
Student Services				xx	x	
Post Secondary			x	x	x	
Business/Industry				x	xx	
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					xx	x
Academic Education				x	x	x
Post Secondary		x	x		x	
Staff Development						
Teachers				x	xx	
Counselors				xx	x	
Post Secondary			xx		x	
Program Services for Special Populations				x	xx	
Marketing Strategies					xxx	
Three-year Commitment					x	x
Evaluation by Grant Consortium					xx	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-29  
 Evaluation Date: 6/22/93  
 No. of Evaluators: 3

Consortium: Richmond County Schools  
 Members: Richmond Community Colleges

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					x	xx
Grant Objective(s) Addressed					xx	x
Collaboration						
Vocational/Technical Education					x	xx
Academic Education					xxx	
Student Services				x	x	x
Post Secondary					xxx	
Business/Industry					xx	x
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					x	xx
Academic Education					xx	x
Post Secondary					xx	x
Staff Development						
Teachers					xxx	
Counselors					xxx	
Post Secondary					xxx	
Program Services for Special Populations					xx	x
Marketing Strategies					x	xx
Three-year Commitment					x	xx
Evaluation by Grant Consortium					x	x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-30  
 Evaluation Date: 6/22/93  
 No. of Evaluators: 3

Consortium Members: Robeson County Schools  
 Robeson Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x		xx
Grant Objective(s) Addressed			x			xx
Collaboration						
Vocational/Technical Education				x		xx
Academic Education				x		xx
Student Services				x	x	x
Post Secondary				x	x	x
Business/Industry				x	x	x
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					xx	x
Academic Education					x	xx
Post Secondary				xx		x
Staff Development						
Teachers				x	xx	
Counselors				x	xx	
Post Secondary				xx	x	
Program Services for Special Populations				xx		
Marketing Strategies					x	xx
Three-year Commitment					x	xx
Evaluation by Grant Consortium				x		x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-31  
 Evaluation Date: 6/30/93  
 No. of Evaluators: 3

Consortium Members: Rockingham County Schools  
 Western Rockingham City Schools  
 Eden City Schools  
 Rockingham Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					x	xx
Grant Objective(s) Addressed					x	xx
Collaboration						
Vocational/Technical Education					x	xx
Academic Education					x	xx
Student Services					x	xx
Post Secondary					x	xx
Business/Industry				xx	x	
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					x	xx
Academic Education					x	xx
Post Secondary					x	xx
Staff Development						
Teachers					x	xx
Counselors					x	xx
Post Secondary				x	x	x
Program Services for Special Populations					xx	x
Marketing Strategies					x	xx
Three-year Commitment						xxx
Evaluation by Grant Consortium			x		x	



## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-32  
 Evaluation Date: 6/30/93  
 No. of Evaluators: 3

Consortium Members: Stanly County Schools  
 Stanly Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				xx	x	
Grant Objective(s) Addressed				xx	x	
Collaboration						
Vocational/Technical Education			x	xx		
Academic Education			xx	x		
Student Services			x	xx		
Post Secondary		xx		x		
Business/Industry		x	x	x		
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education			x	xx		
Academic Education			x	x	x	
Post Secondary		xx		x		
Staff Development						
Teachers		x	x	x		
Counselors		xx	x			
Post Secondary		xxx				
Program Services for Special Populations		xx	x			
Marketing Strategies		xx	x			
Three-year Commitment				xx		
Evaluation by Grant Consortium			x	x		

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-33  
 Evaluation Date: 6/23/93  
 No. of Evaluators: 3

Consortium Members: Tyrrell County Schools  
 Beaufort County Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					x	xx
Grant Objective(s) Addressed					x	xx
Collaboration						
Vocational/Technical Education				x	x	x
Academic Education				x	x	x
Student Services				x	x	x
Post Secondary		xx			x	
Business/Industry		x	x		x	
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education					xx	x
Academic Education					xx	x
Post Secondary		xx			x	
Staff Development						
Teachers				x	x	x
Counselors				x	x	x
Post Secondary		xx		x		
Program Services for Special Populations			x	x	x	
Marketing Strategies				x	xx	
Three-year Commitment					xx	x
Evaluation by Grant Consortium				x		x

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-34  
 Evaluation Date: 6/24/93  
 No. of Evaluators: 3

Consortium Members: Weldon City Schools  
 Halifax County Schools  
 Northampton County Schools  
 Roanoke Rapids City Schools  
 Halifax Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities				x	xx	
Grant Objective(s) Addressed					xx	x
Collaboration						
Vocational/Technical Education				xx	x	
Academic Education				xxx		
Student Services			x	x	x	
Post Secondary		x	x	x		
Business/Industry			x	xx		
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education				xx	x	
Academic Education				xx	x	
Post Secondary		x		x	x	
Staff Development						
Teachers			x	xx		
Counselors			x	xx		
Post Secondary		x	x		x	
Program Services for Special Populations			x	x	x	
Marketing Strategies			x	x		x
Three-year Commitment				x	x	
Evaluation by Grant Consortium				x	x	

## 1992-93 Tech Prep Grant Evaluation

Consortium Number: 921-35  
 Evaluation Date: 6/29/93  
 No. of Evaluators: 3

Consortium Members: Winston-Salem/Forsyth Schools  
 Forsyth Technical Community College

Criteria for Grant Activity/Accomplishments	Evaluator Ratings					
	NA	0	1	2	3	4
Tech Prep Purposes Addressed by Grant Activities					xx	x
Grant Objective(s) Addressed					xx	x
Collaboration						
Vocational/Technical Education				x	x	x
Academic Education				x		xx
Student Services				xx		x
Post Secondary				x	x	x
Business/Industry				x		xx
Articulation (PLANNING ONLY)						
Tech Prep Course of Study (PLANNING ONLY)						
Curriculum Development						
Vocational/Technical Education				x	xx	
Academic Education				x	xx	
Post Secondary			x	x	x	
Staff Development						
Teachers				xx		x
Counselors				xx	x	
Post Secondary			x	x	x	
Program Services for Special Populations			x	x	x	
Marketing Strategies			x	x		x
Three-year Commitment					x	x
Evaluation by Grant Consortium					x	

## APPENDIX B

### COMPILED DATA

## Score Distribution by Consortia

## PLANNING

	N/A	0	1	2	3	4	N
92P-1	0	3	9	21	20	17	70
92P-2	0	1	0	14	30	10	55
92P-3	0	1	2	23	44	0	70
92P-4	0	2	1	26	16	8	53
92P-5	0	1	6	18	35	12	72
92P-6	0	12	6	7	13	0	38
92P-7	0	3	2	7	14	11	37
92P-8	0	0	0	0	13	44	57
92P-9	0	0	2	8	16	30	56
92P-10	0	3	3	19	20	10	55
Total	0	26	31	143	221	142	563
Percent	0.00	0.05	0.06	0.25	0.39	0.25	

## IMPLEMENTATION

	N/A	0	1	2	3	4	N
92I-1	0	0	8	19	21	0	48
92I-2	0	1	16	23	7	0	47
92I-3	0	5	2	29	9	3	48
92I-4	0	0	1	3	14	29	47
92I-5	0	10	7	22	5	0	44
92I-6	0	1	0	5	24	19	49
92I-7	0	2	4	6	11	25	48
92I-8	0	0	3	4	13	14	34
92I-9	0	0	2	3	30	14	49

92I-10	0	1	3	8	41	13	66
92I-11	0	0	4	16	19	6	45
92I-12	0	0	0	4	21	24	49
92I-13	0	1	0	3	21	30	55
92I-14	0	1	5	24	19	0	49
92I-15	0	10	9	24	4	2	49
92I-16	0	2	8	27	10	2	49
92I-17	0	5	0	13	20	9	47
92I-18	0	13	10	34	2	0	59
92I-19	0	0	3	11	23	12	49
92I-20	0	6	5	18	34	1	64
92I-21	0	2	3	14	24	6	49
92I-22	0	0	1	19	24	3	47
92I-23	0	1	1	3	14	30	49
92I-24	0	2	0	5	28	16	51
92I-25	0	10	12	26	1	0	49
92I-26	0	0	0	1	29	19	49
92I-27	0	7	6	12	8	15	48
92I-28	0	1	4	9	26	9	49
92I-29	0	0	0	1	32	17	50
92I-30	0	0	1	15	13	20	49
92I-31	0	0	1	3	17	29	50
92I-32	0	15	12	19	3	0	49
92I-33	0	7	2	9	19	13	50
92I-34	0	3	8	23	13	2	49
92I-35	0	0	4	16	16	12	48
Total	0	106	145	471	615	394	1,732
Percent	0.00	0.06	0.09	0.28	0.35	0.22	

## Score Distribution by Evaluation Criteria

### Tech Prep Purposes Addressed by Grant Activities

Rating	0	1	2	3	4	N
<b>PLANNING</b>	0	1	5	11	13	30
Percent	0.00	0.03	0.17	0.37	0.43	
<b>IMPLEMENTATION</b>	0	1	21	41	39	102
Percent	0.00	0.01	0.21	0.40	0.38	

### Grant Objective(s) Addressed

Rating	0	1	2	3	4	N
<b>PLANNING</b>	0	1	4	14	12	31
Percent	0.00	0.00	0.13	0.45	0.39	
<b>IMPLEMENTATION</b>	0	4	17	38	41	100
Percent	0.00	0.04	0.17	0.38	0.41	

### Collaboration - Vocational/Technical Education

Rating	0	1	2	3	4	N
<b>PLANNING</b>	1	0	4	17	9	31
Percent	0.03	0.00	0.14	0.55	0.29	
<b>IMPLEMENTATION</b>	0	6	28	44	26	104
Percent	0.00	0.06	0.27	0.42	0.28	

### Collaboration - Academic Education

Rating	0	1	2	3	4	N
<b>PLANNING</b>	1	1	7	13	8	30
Percent	0.03	0.03	0.23	0.43	0.27	
<b>IMPLEMENTATION</b>	0	10	30	38	25	103
Percent	0.00	0.10	0.29	0.37	0.24	



## Collaboration - Student Services

Rating	0	1	2	3	4	N
PLANNING	1	1	9	15	5	31
Percent	0.03	0.03	0.29	0.48	0.16	
IMPLEMENTATION	2	10	36	33	22	103
Percent	0.02	0.10	0.35	0.32	0.21	

## Collaboration - Post Secondary

Rating	0	1	2	3	4	N
PLANNING	3	2	5	12	8	30
Percent	0.10	0.07	0.17	0.40	0.27	
IMPLEMENTATION	18	13	26	26	19	102
Percent	0.18	0.13	0.25	0.25	0.19	

## Collaboration - Business/Industry

Rating	0	1	2	3	4	N
PLANNING	0	7	9	6	7	29
Percent	0.00	0.24	0.31	0.21	0.24	
IMPLEMENTATION	13	14	30	27	18	102
Percent	0.13	0.14	0.29	0.26	0.18	

## Articulation - Planning Only

Rating	0	1	2	3	4	N
PLANNING	1	1	5	10	12	29
Percent	0.03	0.03	0.17	0.34	0.41	

## Tech Prep Course of Study (Planning Only)

Rating	0	1	2	3	4	N
PLANNING	1	1	8	10	9	29
Percent	0.03	0.03	0.28	0.34	0.31	

## Curriculum Development - Vocational/Technical Education

Rating	0	1	2	3	4	N
PLANNING	1	0	10	17	2	30
Percent	0.03	0.00	0.33	0.57	0.07	
IMPLEMENTATION	1	7	26	49	19	102
Percent	0.01	0.07	0.25	0.48	0.19	

## Curriculum Development – Academic Education

Rating	0	1	2	3	4	N
PLANNING	1	2	14	10	2	29
Percent	0.03	0.07	0.48	0.34	0.07	
IMPLEMENTATION	0	7	31	48	16	102
Percent	0.00	0.07	0.30	0.47	0.16	

## Curriculum Development – Post Secondary

Rating	0	1	2	3	4	N
PLANNING	5	3	7	12	3	30
Percent	0.17	0.10	0.23	0.40	0.10	
IMPLEMENTATION	25	9	31	25	13	103
Percent	0.24	0.09	0.30	0.24	0.13	

## Staff Development – Teachers

Rating	0	1	2	3	4	N
PLANNING	0	1	11	10	8	30
Percent	0.00	0.03	0.37	0.33	0.27	
IMPLEMENTATION	1	5	30	46	20	102
Percent	0.01	0.05	0.29	0.45	0.20	

## Staff Development – Counselors

Rating	0	1	2	3	4	N
PLANNING	1	0	12	10	8	31
Percent	0.03	0.00	0.39	0.32	0.26	
IMPLEMENTATION	3	9	34	37	19	102
Percent	0.03	0.09	0.33	0.36	0.19	

## Staff Development – Post Secondary

Rating	0	1	2	3	4	N
PLANNING	5	3	8	9	5	30
Percent	0.17	0.10	0.27	0.30	0.17	
IMPLEMENTATION	24	14	24	33	8	103
Percent	0.23	0.14	0.23	0.32	0.08	

## Program Services for Special Populations

Rating	0	1	2	3	4	N
PLANNING	4	5	10	7	4	30
Percent	0.13	0.17	0.33	0.23	0.13	
IMPLEMENTATION	13	19	30	25	4	91
Percent	0.14	0.21	0.33	0.27	0.04	

## Marketing Strategies

Rating	0	1	2	3	4	N
PLANNING	0	1	6	12	12	31
Percent	0.00	0.03	0.19	0.39	0.39	
IMPLEMENTATION	3	8	36	32	24	103
Percent	0.03	0.08	0.35	0.31	0.23	

## Three-year Commitment

Rating	0	1	2	3	4	N
PLANNING	0	0	4	16	10	30
Percent	0.00	0.00	0.13	0.53	0.33	
IMPLEMENTATION	0	1	14	32	34	81
Percent	0.00	0.01	0.17	0.40	0.42	

## Evaluation by Grant Consortium

Rating	0	1	2	3	4	N
PLANNING	1	1	5	10	5	22
Percent	0.05	0.05	0.23	0.45	0.23	
IMPLEMENTATION	2	8	24	20	17	71
Percent	0.03	0.11	0.34	0.28	0.24	

## Overall Evaluation of Grant by Evaluation Member

Rating	0	1	2	3	4	N
PLANNING	0	1	7	14	20	28
Percent	0.00	0.04	0.25	0.50	0.71	
IMPLEMENTATION	0	7	26	25	20	76
Percent	0.00	0.09	0.33	0.32	0.26	

## APPENDIX C

### CONSORTIA EXECUTIVE SUMMARIES

## Executive Summary

Consortia Number: 92P-1

Consortia Members: Alexander County Schools  
Catawba Valley Community College

Alexander County Schools  
1992-1993  
Tech Prep Project

In September of 1992, a steering committee was formed consisting of 5 administrators, 1 vocational teacher, 2 academic teachers, 12 representatives from business and industry, 1 community college representative, and 1 school board member. This committee met several times during the early fall to discuss the components of TECH PREP, and how it could be implemented into our school system.

A total of 14 persons participated in the TECH PREP Conference in Greensboro; 4 administrators, 3 academic teachers, 3 guidance counselors, 3 vocational teachers, and 1 business and industry representative. This group became the staff development committee for tech prep. During 1992-1993 a total of 204 teachers were involved in 195 days of professional development. (Of this, 174 teachers and 128 days was supported with other fund sources)

On November 23, the committee finalized the details of TECH PREP for Alexander County. Immediately afterwards, the curriculum subcommittee began plans for meetings between secondary and post secondary teachers. An evening meeting was held in December at CVCC with community college teachers, and ACHS academic and vocational teachers attending. There were individual follow up meetings with each of the program areas.

In January, a half day meeting was scheduled for all high school and junior high school staff, including teacher aides and custodians. At this meeting, the tech prep program was outlined, and the decisions made by the steering committee were shared. Teachers were given information to share with their students.

A team was formed to interview each 9th grade student to discuss their DAT results, and inform them of the tech prep opportunities, and to answer questions about courses, registration procedures, etc. The career planner was started in that meeting.

Publicity and information strategies included two billboards located in the county, newspaper articles and an insert in the local paper, printing a curriculum guide, providing placemats for area restaurants, and a display at a local shopping area and in the Board of Education Office.

Career information materials are purchased for the high school, and three career planning workshops were attended. The student services subcommittee met monthly, with developing a career planner, and developing a K-12 career curriculum their primary goals.

One of the most successful activities of the TEch Prep grant was the internship of 9 vocational and academic teachers at the end of the school year. The business and industries visited were very receptive to developing a closer working relationship with the schools. This will be an activity that will be repeated again next year.

Some of the focuses of our implementation plan for 1993/1994 include upgrading computer equipment, the continuing development of the K-12 career curriculum, developing stronger ties with business and industry and with the four area community colleges.

## Executive Summary

Consortia Number: 92P-2

Consortia Members: Brunswick County Schools  
Brunswick Community College





# Brunswick County **TECH PREP**

Brunswick County Tech Prep is a partnership among Brunswick County Schools, Brunswick Community College, and local business and industry. Dr. Ralph Johnston, Superintendent of Brunswick County Schools, and Dr. W. Michael Reaves, President of Brunswick Community College, have completely supported the Tech Prep partnership. David J. Batten, General Manager of Brunswick Electric Membership Corporation, has served as Chairman of the Tech Prep Steering Committee. Subcommittees for Information and Promotion, Student Services, Curriculum Development, and Evaluation were very actively involved in the development of Tech Prep.

The stated purpose of the Tech Prep planning grant was to develop an articulated curriculum for the 1993-1994 school year to benefit students from the three Brunswick County high schools by providing guidance and direction into Brunswick Community College's Associate Degree Programs. Tech Prep was designed to ensure high school graduates a smooth transition into community college curriculums, as well as to provide the option for students to pursue professional careers through a four-year college or university. The following objectives/outcomes were realized during the 1992-1993 school year:

- A written Tech Prep agreement was developed jointly and endorsed by the leadership of Brunswick County Schools and Brunswick Community College. This agreement led to the development of an articulation agreement which was designed to close curriculum gaps, eliminate unnecessary repetition of student competencies, provide for advanced placement, and ensure a smooth transition from the high school into Brunswick Community College.
- The articulation agreement was developed between Brunswick County Schools and Brunswick Community College by identifying competencies taught within the three proposed curriculum areas: Engineering, Industrial, & Agricultural; Health and Human Services; and Business & Marketing. The articulation agreement includes the required proficiency at the secondary level for credit at the post-secondary level in the common areas of communications, mathematics, science, social studies, and vocational/technical education in order to lead to an Associate Degree in a specific career field. This was accomplished with joint committees from the schools and the community college with consultative input from business and industry by reviewing existing curriculums relative to the six-year Tech Prep Course of Study.

- A six-year Tech Prep Course of Study was completed for Brunswick County Schools and Brunswick Community College. The Course of Study details the academic and vocational/technical courses in the three proposed curriculum areas necessary for a student to progress from high school through an Associate Degree.
- A public information/marketing program was conducted throughout Brunswick County to communicate Tech Prep to parents, business and industry, teachers, administrators, and other public officials. Informational and recruiting brochures were printed and distributed to the community. On-going Tech Prep publicity was accomplished with newspaper releases and advertisements, pencils, folders, and billboards.
- Staff development training was conducted for academic teachers, vocational/technical teachers, guidance counselors, and other staff members of Brunswick County Schools and Brunswick Community College to facilitate the implementation of Tech Prep in the fall of 1993. Cooperation and understanding between personnel of both systems were greatly enhanced. All training activities were in addition to the regular activities of personnel.
- Individual career education plans have been developed for all eighth through eleventh grade students for the 1993-1994 school year. The plans include preparatory services, academic courses, and vocational/technical courses for four years of secondary and two years of post-secondary education. The individual plans will assist students in achieving their goal of an Associate Degree or in transferring to a four-year college or university.
- Student support services have provided equal access to the full range of vocational/technical programs to members of special populations. Individual career development plans have been developed beginning in the eighth grade. These plans address realistic career goals, transition services, and support services needed for the special population students to succeed.
- The number of students preregistered for Tech Prep in the 1993-1994 school year has not been determined because the schools have not yet begun developing their fall schedules. The actual effectiveness of the publicity, counseling, and recruitment will not be realized for several years. Plans have proceeded with the development of an implementation plan for the 1993-1994 school year.
- The final evaluation summary of the Tech Prep planning effort was developed for the North Carolina Department of Public Instruction. The Brunswick County Tech Prep Associate Degree program will follow guidelines of the State Board of Education and the State Board of Community Colleges.

## Executive Summary

Consortia Number: 92P-3

Consortia Members: Burke County Schools  
Western Piedmont Community College

**Burke County Public Schools and Western Piedmont Community College**  
**Tech Prep Planning Grant 1992-1993**  
**EXECUTIVE SUMMARY**

### Where We Began

- ▶ Prior to receiving the **Tech Prep Planning Grant** from the North Carolina Department of Public Instruction the Burke County Public Schools had already begun the process of incorporating the **Tech Prep** course of study in the high school planning process. Students were encouraged to choose from **Tech Prep**, College, or General course of study tracks when designing their four (4) year plan.
- ▶ Limited **Tech Prep** promotional materials were developed and distributed to high school students as part of the normal high school registration process.
- ▶ Cooperative articulation agreements were already in existence between the Burke County Public School system and Western Piedmont Community College, although they were somewhat limited to a very few academic and technical areas.
- ▶ Limited orientation to the concepts of **Tech Prep** had been completed for the staffs at both of our public high schools and the community college.
- ▶ Initial articulation of technical programs and limited academic curriculums between the Burke County Public Schools and Western Piedmont Community College were completed.
- ▶ The Burke County Public Schools and Western Piedmont Community College requested grants from the North Carolina Department of Public Instruction to plan and implement the process of **Tech Prep** in Burke County. Both systems had jointly requested funds for two (2) consecutive years and were not funded.

### What Has Been Accomplished This Year

- ▶ The Burke County Public Schools and Western Piedmont Community College were notified last year that they would jointly be the recipient of a **Tech Prep Planning Grant** for the academic year 1992-1993.
- ▶ The public school system and the community college felt that a **Tech Prep** leadership committee needed to be formed to allow adequate input from business/industry, the community college, and the public school system. This committee was successfully formed and created an atmosphere of cooperation and understanding that allowed all to move forward in this planning process.

## Executive Summary

June 28, 1993

Page Two:

- ▶ The applied physics courses, Principles of Technology, levels one and two were implemented at Freedom High School. Principles of Technology, level one has been implemented at East Burke High School with level two to be implemented in the fall of the 1993-1994 academic year. Additionally, we have implemented the applied math course at both of the high schools. General math and consumer math have been deleted from the offerings at both high schools.
- ▶ Our registration materials have been revised to include **Tech Prep** promotional materials. Complete **Tech Prep** course of study guides have been developed and prepared for all **Tech Prep** students as well as the high school counselors and teachers. **Tech Prep** registration packets with transparencies and videos have been provided for all middle school counselors. Also an interest/abilities inventory has been administered to all eighth graders as part of the registration process.
- ▶ A team from each of our high schools has been sent to a vocational/academic integration conference. The vocational/academic integration projects are underway in both of our high schools. Through this integration process the public schools and the community college have developed a "curriculum matrix" for most of the technical programs offered at the community college. This will allow our **Tech Prep** students the opportunity to visualize their four (4) plan and make adjustments to their schedules.
- ▶ A Western Piedmont Community College orientation/pre-registration experience was developed and implemented for both of our high schools. The orientations took place at East Burke High School on May 7, 1993 and at Freedom High School on May 14, 1993. Both orientations were extremely well accepted and attended.
- ▶ A **Tech Prep** logo contest was developed and students from the high schools were asked to compete for a cash award. This contest was successful and a new **Tech Prep** logo emerged and is currently being used on all promotional and registration materials.
- ▶ Our high school teachers have completed the following summer projects:
  - a. Curriculum alignment June 14th & 15th led by Dr. Max Thompson, a consultant from Appalachian State University;
  - b. Business-industry visits for teachers/counselors were conducted on June 16th, 17th, 22nd & 23rd, 1993;

- c. Development of a small business/entrepreneurship unit for all high school students (*in-progress*);
- d. Planning for an algebra/English sequence for at-risk and exceptional students has taken place on June 14th, 15th, & 16th, 1993.

### CONCLUSIONS

During one of the **Tech Prep** training sessions, one of the middle school counselors stated that "**Tech Prep** is really a program of total school reform."

The progress during the 1992-1993 school year toward implementation of an effective **Tech Prep** program has affected most areas of the curriculum grades 8-12. The addition of *Principles of Technology, Applied Mathematics*; the elimination of *general math* and *consumer math*; the beginnings of true integration of academic and vocational curricula; and the beginning of a thorough curriculum alignment project were made possible by the *planning grant* and the acceptance of **Tech Prep** in the schools and in the community.

Barriers to full implementation still exist. Some staff members, many students, and many parents still do not understand and appreciate the benefits of **Tech Prep**. However, the activities of the past year have greatly reduced these and other obstacles. Most importantly, a truly effective **Tech Prep** program now is more than an idea or a dream. We believe that, with appropriate support and funding, the Burke County **Tech Prep** program will one of the most effective in the state within the next three years.

## Executive Summary

Consortia Number: 92P-4

Consortia Members: Columbus County Schools  
Whiteville City Schools  
Southeastern Community College



## Tech Prep Executive Summary

### Columbus County Consortium

In the year 1991-92, a consortium was formed to initiate planning for Tech Prep, even though our planning grant application had not been funded. The consortia (Whiteville City Schools, Columbus County Schools, and Southeastern Community College) met throughout the year. Myrtle Stogner, Director of N.C. Tech Prep Center, kicked off the year with a business/industry dinner meeting (approximately 100 in attendance) to inform the community leaders about Tech Prep and the need for involvement of all in its development. During the year strong collaborative efforts were developed resulting in the preliminary development of an articulation agreement and a curriculum guide. As the year ended, a consortia sub-committee was formed to develop and write a Tech Prep Planning grant for 1992-93.

After receiving the planning grant several consortia members attended the Executive Leadership Conference in Nags Head. The conference theme focused on business/industry involvement in such a way that those attending, agreed that a strong business/industry leader would be necessary to afford the maximum success of our Tech Prep initiative.

In October 1992, the coordinators of the consortia - vocational director of both systems, and the chairperson of Business, Public and Human Services, met to decide the structure of the Steering Committee, Partners in Education (PIE). Note that Southeastern Community College dedicated an additional half-time position to support Tech Prep. It was confirmed that the chairman of PIE should be a business/industry leader, who is aggressive, well-known, respected and dedicated to the philosophy of Tech Prep. After discussion and careful consideration, Mr. Rhone Sasser, President and CEO of United Carolina Bank agreed to serve as chairman of PIE. The PIE was further structured to include six subcommittees - marketing, curriculum, staff development, student support, business/industry partnership and evaluation. The total subcommittees membership is 96 with representatives from business/industry, educators, administrators, parents and students.

On November 12, 1992, Mr. James Lunsford, Director Vocational Technical Education, Cabarrus County, made a Tech Prep presentation to 5 members of the PIE committee. After months of meetings and hard work, the subcommittees reported the following.

The Marketing Committee chaired by Linda Rozelle, Marketing Specialist, News Reporter, Whiteville, has developed a strong advertising plan using newspaper teasers and articles, radio PSA's, posters, brochures, logos and novelties. Two billboards were purchased and placed with logo on school sites and another was leased for one year with logo. This group secured a \$3,000 grant from R.C. Saddler Foundation to produce an MTV type video and secured a \$500 grant from the N.C. Math and Science Alliance for T-shirts advertising Tech Prep and the Alliance. A Tech Prep coloring book was also developed and designed for primary and elementary school age children.



The Curriculum Committee chaired by Dr. Steve Scott, President, Southeastern Community College, addressed reading and math needs of the business/industry sector and studied proposals for new technical courses, applied math, biology and chemistry, English and principles of technology. Equipment needs and costs were also developed. In addition, the committee updated the articulation agreement and finalized the curriculum guide/matrix.

The Staff Development Committee chaired by Patricia Medlin, Supervisor, Whiteville City Schools, set up visitations to Cumberland, Sampson and Richmond County's Tech Prep sites. Approximately 140 faculty and staff from the consortiums were involved in formal workshops and conferences, in Greensboro, High Point, Charlotte, Winston-Salem, St. Louis, Mo., and the National Conference in Anaheim, California. Mr. Stogner visited our county on five different occasions to train faculty and staff. Faculty and staff on all campuses have participated in less formal activities presented by PIE to inform them about Tech Prep and its progress. Mr. Sasser presented a full Tech Prep update to the school boards in April. Technology Days were also held on two of the four school campuses.

The Student Support Committee chaired by Shirley Burroughs, Counselor, Columbus County School System, organized a meeting of all secondary and post-secondary counselors. This committee developed a 14 counseling plan, and a list of needed career and occupational materials, equipment and software. The committee also discussed the need for continuing education course offerings to better prepare all counselors in the consortiums.

The Business/Industry Partnership chaired by Bobby Davis, BEMC, has developed a list of traits and skills that the student should bring to the workplace. The committee also developed a survey to identify the needs and characteristics of a good employee in Columbus County. The result of the survey will be available fall 1993. In addition, the committee is working toward identifying business/industry to become partners with schools in the consortiums.

The Evaluation Committee, chaired by Dr. Ed Grigsby, Dean of Instruction, Southeastern Community College, has monitored our progress and has found the planning grant's objectives have been met. The committee strongly agrees that base line data is needed and should be developed from the 1992-93 public school report card, and other end of course test data.

As of today, these committees continue to meet with anticipation of implementation fall 1993.

## Executive Summary

Consortia Number: 92P-5

Consortia Members: Elkin City Schools  
Surry County Schools  
Mt. Airy City Schools  
Yadkin County Schools  
Stokes County Schools  
Surry Community College

SUMMARY REPORT  
TECH PREP - 1992-93

The 1992-93 school year was a time to plan and establish a solid foundation for the implementation Tech Prep in the institutions of the Surry-Yadkin-Stokes-Surry Community College Tech Prep Consortium.

A strong commitment to the principles of Tech Prep was demonstrated by the unanimous approval by the governing boards of each member institution of an extensive "Memorandum of Agreement" for joint cooperation, coordination, and participation in the full implementation of Tech Prep. The school superintendents and community college president exert strong personal and administrative leadership in support of the "Memorandum's" stated goals for the Surry-Yadkin-Stokes-Surry Community College Tech Prep Program.

While the Executive Committee of the Consortium, comprised of the community college president and the five school superintendents, demonstrated strong leadership and loyal support of the Tech Prep Program, the Steering Committee, comprised of central office and school level administrators, guidance counselors and instructional personnel, assumed responsibility for planning and implementing the goals of the program.

The Steering Committee met monthly throughout the year to review and evaluate the progress of the program and to plan future activities. Some of the more significant achievements of the Steering Committee's work include the following:

1. Articulation Agreement

Curriculum Alignment Committees, comprised of public school and community college faculty members, were selected for each vocational/technical and academic program area. The work of these committees produced curriculum matrices with stated competencies which are to be taught at each grade level (9-14) and an articulation agreement with advanced placement credit in eleven vocational/technical subject areas. Similar curriculum alignment committees were appointed for the academic

area of English, mathematics, and science. While curriculum matrices and course competencies were developed and implemented, there was an agreement to delay for one year the implementation of the advanced placement credit phase in the areas of mathematics and science in order to do further study. Other curriculum alignment committees will work in the trades and industries and social studies areas in the 1993-94 school year.

2. Staff Development

An extensive staff development program directly related to the goals of Tech Prep was planned and implemented by the Steering Committee. Staff development experiences were offered in such areas as orientation to the Tech Prep Program, the Tech Prep Curriculum, the four courses normally associated with Tech Prep, career planning for Tech Prep students, and student learning styles. The Consortium sponsored thirteen workshop experiences and there were 327 secondary and community college participants in these workshops.

3. High School Students at Surry Community College

The Steering Committee's efforts to coordinate and articulate curriculum efforts between the high schools and the community college resulted in plans for more eligible high school students to enroll in community college courses, especially in the trades and industries areas. Declining enrollments and spiraling costs have forced some schools to plan to discontinue certain programs; in addition, costs of beginning some programs are so prohibitive that school systems cannot offer certain subjects to their students. It seems logical that since these programs are already in place at the community college level, a centralized location, that eligible high school students should be admitted for participation. This will occur in several subject areas in 1993-94 as a result of the work of the Tech Prep Steering Committee. A basis has been established for expanding this area of cooperation, coordination, and articulation in future years.

4. Course of Study Brochure

The Steering Committee developed a "Tech Prep Course of Study Student Guide" which serves as a guidance and career planning guide. This "Course of Study Student Guide" may be used with all students, Tech Prep, College Prep, and Vocational Prep, as they plan their education and career goals. The "Guide" provides guidance for students in five "Career Preparation Pathways" that leads to further education and training in certificate/license/diploma programs, associate degree programs at the community college level, and to four-year degree programs. The Steering Committee's involvement in the development of the "Student Guide" forced all consortium institutions to take a long-range look at its curriculum. Major revisions will occur as a result of these efforts.

5. Development of an Information Brochure

The Steering Committee developed an attractive "Tech Prep Information Brochure" which is used in orientation and publicity efforts by members of the consortium. It contains the essential information about Tech Prep and a basic philosophy of the program. Distribution has been made to staff and faculty of member institutions and to the public in the three county area.

While significant progress was made in the areas listed above, perhaps the most notable achievement for the Surry-Yadkin-Stokes-Surry Community College Tech Prep Program during this past year has been in the area of attitude toward each other. In past years jealousies, animosities, misunderstandings and "turfdom" existed between the school systems and the community college, and as well as between some of the school systems. The experience of groups representing each of the institution sitting down and discussing their programs, their problems and their successes, has served to develop an attitude of understanding, cooperation, and appreciation. These experiences have been so successful that, in many instances, agreements have been made for college and high school personnel to serve on each other's advisory committees.

Because of the basis which has been established during the 1992-93 school year, members of the consortium are prepared to continue, on a larger scale, Tech Prep implementation efforts in 1993-94.

The 1992-93 school year was significant for the Surry-Yadkin-Stokes-Surry Community College Tech Prep Consortium as its member institutions moved toward joint improvement of education programs and services to student. Cooperation, coordination, and articulation of curricula goals have exceeded all past efforts. Cooperation, coordination, and articulation have reached an historic level. This was made possible by the Tech Prep Planning Grant which allowed high school and community college personnel to meet during their most productive time of day. The result has been the creation of a vision of the rich possibilities of what future cooperative efforts may bring. All of the good results of the 1992-93 Tech Prep Planning Year were made possible by the Planning Grant. Without grant funds little or none of the significant achievements could have been possible.

The stage is set to begin the full implementation of Tech Prep in member institutions of the Surry-Yadkin-Stokes-Surry Community College Tech Prep Consortium. The 1992-93 Planning Grant made this possible.

## Executive Summary

Consortia Number: 92P-6

Consortia Members: Gaston County Schools  
Gaston College  
NC Center for Applied Textile Technology

## EXECUTIVE SUMMARY

### THE GASTON COUNTY TECH PREP CONSORTIUM

Tech Prep began the fall of 1992 in Gaston county. The responsibility for Tech Prep came under the Instructional Specialist for Vocational Education until a person was hired to assume the responsibility for Tech Prep. The School Board agreed upon a 2+2 program and to begin the first applied courses. Technical Math I was introduced at four of the seven high schools and their feeder (junior high) schools.

On February 1, 1993, the Instructional Specialist for Tech Prep for Gaston County Schools, Dawn G. Abell, began assuming the responsibility for instituting all phases of applied academics: planning and implementation, collaborating with all higher educational institutions, generating information to be utilized with the community, and doing presentations for the community, business/industry, and educators.

On November 2, 1992, the Tech Prep Coordinator and Recruitment, Retention, Placement Counselor, Bonnie L. Hoyle, was hired. The duties and responsibilities for this position fall under the auspices of the Dean of Engineering Technology, Science and Math. Bonnie Hoyle coordinates the initiatives between Gaston College and the Gaston County Schools, training the faculty and staff of Gaston College on Tech Prep in general and Tech Prep for Gaston County. This position also includes the additional duties of teaching nine contact hours in the winter quarter and five contact hours in the spring quarter. The priorities of this position place instruction of classes above the responsibilities of Tech Prep Coordinator.

Following is the agenda for Tech Prep activities for the 1992-1993 FY:

#### JANUARY

- \* Tour of Bowen Machine: a company using SPC, CNC programming, CMM, and other high tech equipment. The Tech Prep Coordinator in attendance.

#### FEBRUARY

- \* SREB Conference for Teacher Educators Networking: Instructional Specialist for Tech Prep in attendance.
- \* Presentation at Ashbrook High School: to counselors, administrators, and math teachers, including staff from feeder schools.
- \* Attended Chamber of Commerce meeting twice
- \* Attended Workshop: "How to Give Presentations"
- \* Gaston College Board of Trustees: Presentation on Tech Prep.
- \* Business/education Partnership meeting with the Chamber of Commerce attended by Tech Prep Coordinator.

#### MARCH

- \* Presentations at Hunter Huss, East Gaston, North Gaston, Bessemer City, South Point, and Cherryville Senior High Schools plus feeder schools; to math teachers, counselors, GOI's, IEC's and administrators.
- \* Gaston County Tech Prep Consortium was established. The task force met three times this month.
- \* CECNC Regional Meeting at Gaston College (student competition)
- \* Rotary Club: guest and introduction of Tech Prep.
- \* Lake Wylie Elementary Schools: a tour of learning styles school. In attendance were teachers representing several high schools in the district.
- \* Asked by math teacher to observe her at a high school for input on teaching techniques.
- \* Gaston College Engineering Technology Advisory Board: presentation visit.
- \* A&T University visit to talk to professors regarding high tech action labs.
- \* Tour of new school construction in Columbia, SC to examine high tech usage at middle and high school levels.



## MARCH (CONT.)

- \* Gaston College Management Team: presentation about Tech Prep.
- \* Gaston College Business and Computer Science Department presentation.
- \* Hosted Teacher Fellows: presented information on Tech Prep.
- \* Attended ASCD Conference Washington, DC: curriculum/Tech Prep.
- \* Southeast Regional Apprenticeship Conference, Charleston, SC: Two principals, Director of Secondary Education, three GOI's, Tech Prep Coordinator, and Instructional Specialist were in attendance.
- \* Education Committee of the Board of Trustees: Presentation on Tech Prep by Tech Prep Coordinator.

## APRIL

- \* Two Gaston County Tech Prep Consortium meetings.
- \* ITEA Conference: five science teachers, Director of Secondary Education, Tech Prep Coordinator, and Instructional Specialist for Tech Prep were in attendance.
- \* Interactive Design Team: Responsible for the architectural input for the high tech center in the new high school opening Fall '94.
- \* Meeting with Vocational/Tech Prep Director of Cleveland County Schools.
- \* Lincoln County Advisory Council: Presentation on Tech Prep.
- \* Gaston College Health Sciences division: Presentation by Tech Prep Coordinator to all department chairs on Tech Prep.
- \* Tour of JMT: an international supplier and system designer for electronic computer controls. Tech Prep Coordinator in attendance.

## MAY

- \* National Tech Prep Network Conference: Tech Prep Coordinator and Instructional Specialist for Tech Prep were in attendance.
- \* Two Gaston County tech Prep Consortium meetings plus subcommittee meetings.
- \* State Apprenticeship Conference: Instructional Specialist for Tech Prep in attendance.
- \* Meeting with Donna Breasley of the NC Alliance of Science and Mathematics.
- \* NOICC Counselor workshop, Statesville, NC: two high school guidance counselors in attendance.
- \* Presentation training on Tech Prep for Task Force members.
- \* Visit to Rockford High School, Rockford, MI: to visit a technology education and Tech design labs. Included in the trip was the Career Education center.
- \* Lead Agency training for Administrative Personnel: Instructional Specialist for Tech Prep in attendance.
- \* Bessemer City, Ashbrook, Cherryville Senior, Southpoint, and East Gaston High Schools: recruitment of students by Tech Prep coordinator.

## JUNE

- \* Gaston college: Interactive video workshop, "A Day of Quality Learning"
- \* Business/Education Partnership Presentation: Tech Prep Coordinator and Instructional Specialist for Tech Prep were presenters.
- \* Summer Tech Math Institute: attended by six teachers
- \* Principals of Technology Institute: attended by four science teachers.
- \* Gaston College: ACT, Dr. Miller; Tech Prep Coordinator, Instructional Specialist for Tech Prep, and Task Force members in attendance.
- \* tour of Parkdale Mills: Six teachers from Summer Technical math Institute, Tech Prep Coordinator, instructor from course, and Instructional Specialist for Tech Prep in attendance.
- \* "Beyond Effective Schools" workshop: Instructional Specialist for Tech Prep in attendance.
- \* "Model Schools" Conference: High School Principal, Tech Prep Coordinator, and Instructional Specialist for Tech Prep in attendance.
- \* Tech Prep Collaborative Leadership Seminar: principals, guidance counselors, vocational teachers, academic teachers, President of Gaston College, Board of Trustee members, School Board member, Lincoln County Tech Prep Coordinator, Tech Prep Coordinator, and Instructional Specialist for Tech Prep were in attendance.

## JULY

- \* SREB "High Schools that work" Conference: Tech Prep Coordinator and Instructional Specialist for Tech Prep in attendance.
- \* Learning Styles, Rita Dunn: Five teachers/two pilot sites.
- \* "Winds of Change II": Tech Prep presentation by task force.



## Executive Summary

Consortia Number: 92P-7

Consortia Members: Hoke County Schools  
Sandhills Community College

The Hoke County Schools has been involved in the Tech Prep Planning Phase for the past school year. During this time many activities have taken place. We have concentrated our efforts in basically five areas. These five areas are: Curriculum Alignment, Integration of Vocational and Academic Education, Developing a Program of Studies, Assessment of all students, and implementation of a Scholarship Program.

Our efforts were monitored with the following goals in mind: Increased mastery of grade level curriculum; increased average of SAT/ACT scores; increased post secondary enrollment rates; enhanced skills and technical knowledge of entry level labor force; ease of transition from high school to post secondary; increased completion rates; structured curriculum for all students; and program management and accountability. To accompany these goals we outlined the following purposes: To develop an educational plan that spans six years (four at the high school level and two at the community college level); program of studies for all students entering the ninth grade; assessment of all eighth grade students; and alignment of curriculum.

The Hoke County Tech Prep Program has been guided and directed by our steering committee and sub committees. The steering committee consisted of members from the middle school, high school, community college, chamber of commerce, private employers, and county commissioner. We had four sub committees: Information and Promotion, Curriculum Development, Student Services, and Evaluation. Each of these committees had members from the high school, community college and employers.

It has been a pleasure to work with Sandhills Community College. Their previous Tech Prep experience along with our experience with the Southern Region Education Board in Integration of Vocational and Academic Skills has proved to be an excellent foundation to build a strong Tech Prep Program for Hoke County.

Both Hoke County and Sandhills Community College teachers have been busy articulating their curriculum from secondary to post secondary. This articulation has resulted in the development of the program of studies that our students will be following during their four years in high school and their two years at the community college. The teachers have identified courses that relate to each career path, including elective courses. Along with the articulation, the guidance counselors started developing a comprehensive career guidance system to serve students grades 7 through 12. This curriculum not only articulated vocational to academic but academic to academic and vocational to vocational.

Hoke County has been involved with the integration of vocational and academic education for the past 3 years. With the tech prep planning grant we were able to advance our integration activities throughout our high school. During the previous year approximately 40 percent of the

teachers were involved with the integration activities, this year our percentage jumped to 85. These activities ranged from team teaching to sharing facilities/equipment to offering mini grants on a competitive basis.

Staff development activities have been offered to teachers throughout the school year. These activities ranged from curriculum alignment to elements of instruction. Teachers participated in inservices that dealt with high risk students, learning styles, and self concept building activities.

A special part of our program is the scholarship opportunity for students. For students that follow the tech prep program of studies of their choice and complete the minimum requirements will be offered \$500.00 per year for two years to enroll in Sandhills Community College. One of the stronger components of this opportunity is that students will have to maintain an 85 or better cumulative average to be eligible. There were a total of 106 contracts signed from this years rising freshman class. This will be the first group eligible for the scholarships upon graduation.

The enrollment figures for the tech prep program have increased dramatically over the past year. During registration for the past two school years the following have designed tech prep as their program of studies:

	1992 -- 1993	1993 -- 1994
Ninth	21	106
Tenth	16	84
Eleventh	15	70
Twelfth	13	38

We assess all rising freshman with a learning style inventory, career interest inventory, and an aptitude assessment. This information along with their achievement data is used to develop an educational plan for all students.

From the planning phase it has been decided to upgrade curriculum and eliminate more of the general courses from our offerings. Some of the courses we will be offering are: Food Science, Principles of Technology, and Chem Com. Along with new courses we will upgrade the technology used in certain courses such as LandCAD and KetivCAD.

## Executive Summary

Consortia Number: 92P-8

Consortia Members: Lenoir County Schools  
Kinston City Schools  
Greene County Schools  
Jones County Schools  
Lenoir Community College

# Greater Eastern Tech Prep Consortium

## Planning Grant 1992-93

### EXECUTIVE SUMMARY

The Greater Eastern Tech Prep Consortium serves the school systems of Greene, Jones, and Lenoir counties in conjunction with Lenoir Community College (LCC). The Consortium was organized during the 1990-91 school year; however, it was not until this current year that a viable, comprehensive program emerged. The grant has provided the needed impetus to make necessary changes in the organizational structure to include broader representation; enhance our student services efforts; update and revise our courses of study and articulation agreement; provide staff development for counselors, teachers, and administrators; and launch a comprehensive marketing campaign.

The mission statement and goals of the Greater Eastern Tech Prep Consortium were established by the consortium superintendents, along with the president of Lenoir Community College and gave direction and focus to the planning effort. The goals are (1) to develop and implement a comprehensive, sequential program of studies available to all students; (2) to provide guidance services to assist all students in planning and pursuing their educational programs; (3) to provide staff development for teachers, counselors, and administrators to implement the Tech Prep program; (4) to promote Tech Prep throughout the service area so that students, staff, parents, business and civic leaders will be knowledgeable of the purpose and benefits of the program; and (5) to continually assess, modify, and strengthen the Tech prep program to meet the changing needs of individuals, communities, and employers.

The Student Services Committee is charged with providing staff development for counselors and improving the overall guidance services provided to students. The work of the Committee focuses on improving the four-year planning process and career counseling. Perhaps the most significant activity sponsored by the Committee was the presentation by Dr. Eleanor Herndon, Director of Student Services, Cumberland County Schools, who shared with the consortium counselors, IECs, special populations coordinators, and administrators Cumberland County's procedure for providing four-year planning and career counseling to its students. Subsequent workshops and meetings have enabled the counselors to prepare four-year planning and career development folders and a plan for improved comprehensive career guidance.

The Curriculum Development Committee determined its purposes to be "to update the 4 + 2 Tech Prep Courses of Study and existing curriculum articulation agreement and to meet the staff development needs of instructors and administrative staff members." Updating the Tech Prep courses of study at the member high schools was carried out by teams of educators working at their respective schools. Each cross-disciplinary team consisted, minimally, of representatives of the various academic disciplines, the appropriate vocation/technical teacher(s) for each specific strand, and appropriate business/industry representatives. Community college personnel worked concurrently to provide the matching community college programs. The resulting work by the teams and the Curriculum Development Committee produced courses of study with consistent formats, but with courses unique to each school.

The existing articulation agreement was revised and updated as part of the Curriculum Development Committee's work. Vocational/Technical Education course blueprints were very helpful in this process and teachers, academic and vocational supervisors, and community college instructors assisted the Curriculum Development Committee in its efforts. With the help of the Marketing Committee, the articulation agreement was formatted to match the other Tech Prep documents produced this year.

As a result of the efforts of the Curriculum Development Committee, much staff development has occurred during this planning grant year. Eight workshops, conferences, or lectures were attended jointly by consortium teachers et al, and many other inservice activities were carried out by individual consortium members. The most far-reaching and, perhaps, most significant workshop for the consortium was the train-the-trainer Dimensions of Learning workshop presented in May by Dr. Guy Blackburn, one of the authors of the program. The new trainers will deliver the workshop to the entire faculty at their respective schools this fall.

The Information and Promotion Subcommittee was responsible for marketing the program. The approach chosen for the marketing campaign is simple, direct, and unique. The Committee wanted a theme that didn't reflect just academics or vocational/technical studies, but rather a blending of the two which is reflected in the Tech Prep program. The theme *Make the Connection—Get Tech Prep* uses four puzzle pieces to visually capture the need for a student to have four years of high school with at least two years of college to have a career in an emerging technically advanced society.

Billboards were posted throughout the three-county consortium promoting the logo *Get Tech Prep*. These billboards were changed after two months and followed with the theme *Make the Connection*. All publications which include student guides, recruitment brochures, posters, student folders, and articulation agreement brochures use the Greater Eastern Techn Prep theme and logo. Teaser ads were placed in five newspapers in the service area encouraging students and parents to Make the Connection with Tech Prep. These ads were followed with full-page color advertisements in two newspapers and included listings of support from manufacturers, industries, and businesses. Several stories have been published in the local newspapers about Tech Prep, and one radio station has donated time to discuss the program. Pencils bearing the *Make the Connection—Get Tech Prep* slogan were also purchased to give to students as a reminder of the opportunities available to them. Another important recruitment tool is a locally produced video *Make the Connection*—a video which explains what making the connection with Tech Prep means to students. This video is being used throughout the consortium to introduce the program to and encourage students to take advantage of the opportunities Tech Prep offers.

The Evaluation Subcommittee, equipped with goals and objectives for the program, prepared the evaluation plan. The plan consists of "evidences" or measures for each goal that allow for assessment of the degree of goal attainment. To obtain the necessary information and data to support assessment, survey instruments were prepared for eight groups. The groups surveyed included the four subcommittees, principals, counselors, vocational directors, and LCC. The responses have been returned and are being compiled. A final report will be prepared and distributed to all participants by the end of summer 1993.

## Executive Summary

Consortia Number: 92P-9

Consortia Members: Union County Schools  
Monroe City Schools  
Union Campus of Anson-Stanly Community College

TECH PREP FINAL REPORT  
UNION COUNTY PLANNING GRANT

JUNE 30, 1993

## INTRODUCTION

Our Tech Prep consortium included Monroe City Schools, Union County Schools, and the Union Campus of Anson-Stanly Community College. The Planning Grant made it possible for us to introduce the Tech Prep concept to various groups and agencies in Union County. Needless to say, 1992-93 was an unusual year for Union County due to a variety of changes that were taking place in key agencies. These included merging of the Monroe and Union County Schools, election of a new school board, and the hiring of a new superintendent. The Chamber of Commerce was undergoing a transition due to a resignation and the subsequent hiring of a new executive vice-president. The Anson-Stanly Community College also broke ground and began construction of their first building on a campus which is adjacent to the Union County Career Center.

## STEERING COMMITTEE

The committee approach was used in conducting the Tech Prep project. Our first task was to form a Steering Committee and decide on other committees, their composition and the responsibilities for each. The Steering Committee decided on four additional committees as follows: Curriculum, Student Services, Marketing, and Business/Industry. Each committee included a high school academic and vocational teacher, a community college academic and technical faculty member, a guidance counselor, a school administrator, and representatives from business/industry.

The Steering Committee members included the Superintendent of both school systems, the President of two Community Colleges, Vice-President of Wingate College, two school board members, and other staff members in key leadership positions. The Steering Committee met monthly and gave general direction to the Tech Prep program. Mrs. Myrtle Stogner served as our consultant and provided us with outstanding leadership throughout the year.

## CURRICULUM

The purpose of the Curriculum Committee was to plan appropriate course options for the Tech Prep (TP) program that would blend higher level academic and vocational courses in order to prepare our students for recommended technical and two-year college programs. After considering several options, the following curriculum areas were selected for inclusion during the first year: Business/Marketing, Health/Human Services, and Engineering/Environmental.

Subcommittees then gave considerable attention to which sequences of academic and vocational courses would best prepare the students in each area. A four-year plan was developed for each area, and each plan identified specific technical or associate degree programs that would correspond with the TP curricula. This information was published in our High School Program of Studies, a brochure and in local newspapers.



## **STUDENT SERVICES**

The Student Services Committee appropriated its time toward orientation, staff development and technical assistance of guidance counselors. We recognized a key to a successful Tech Prep program is the belief and dedication of those in decision making positions. Guidance counselors were given priority consideration.

All middle and high school counselors received an indepth in-service presented by Mr. Al Taylor of Cumberland County Schools. These same counselors participated in the countywide Tech Prep Expo in which they manned a booth to answer parents concerns regarding the new curriculum effort. Technical assistance was provided through a packaged student orientation which included a script, transparencies, and over 40 Career Paths. The Career Paths also indicated postsecondary locations of related training. Following grade level orientation sessions, counselors were to develop a 4-year academic plan for each student. The plans were printed on orange card stock for placement in cumulative folders.

## **MARKETING**

The Marketing Committee planned and implemented a marketing campaign which included the following:

- Tech Prep Logo/Theme
- Tech Prep General Brochure
- Tech Prep Recruitment Brochure
- Newspaper Advertisements
- Banners
- Stadium Cups
- Orientation Sessions for High School and Middle School Faculties and Staff
- Report Card Stuffer
- Eighth Grade Orientation by Gil McGregor (UCB Sponsored)
- Richmond County Tours
- Tech Prep Conference
- Articulation Conference
- Tours of Businesses and Industries

## **COMMUNITY COLLEGE INVOLVEMENT**

Community college representatives have been involved in all aspects of the Tech Prep program in Union County. Some examples of their involvement include the following:

- Member of each committee
- Exhibit in Tech Prep Expo
- Presentations to high school and middle school faculties
- Tour Richmond County Tech Prep program
- Attended workshops on Tech Prep
- Development of Articulation Agreement

Tech Prep has opened doors to allow communication between the Public School System, the Post Secondary Institutions, and Business and Industry for the betterment of our students and community.

## **BUSINESS/INDUSTRY**

Representatives from business/industry have been an integral part of all of our Trade Prep committee work<sup>ing</sup> activities. A meeting was held at the Chamber of Commerce to orient the President and the new Executive Vice President to Tech Prep. On August 26, 1993, the Union County Chamber of Commerce will sponsor a Kick-Off for Tech Prep. This will help launch the implementation of Tech Prep at the beginning of the 1993-94 school

## Executive Summary

Consortia Number: 92P-10

Consortia Members: Washington City Schools  
Beaufort County Schools  
Beaufort Community College

Beaufort County Schools/Washington City Schools/  
Beaufort County Community College

Tech Prep Agreement

**PURPOSE**

The purpose of this proposal is to obtain the funds necessary to develop a tech prep plan on behalf of the Beaufort County Schools, Washington City Schools, and Beaufort County Community College that will lead to a comprehensive four year high school program plus two years of specialized/advanced training at the community college level. Ultimately the strong comprehensive link between the secondary schools and the community college will help to better prepare our youth to enter the work force with skills that will allow them to be productive, contributing members of society.

**OBJECTIVES**

The objectives below outline the steps necessary to plan for an articulated tech prep program.

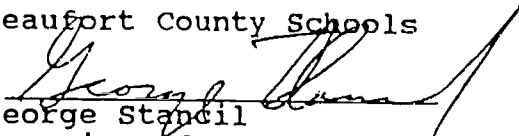
- A. To develop and have approved an articulation plan between the Beaufort County Board of Education, and Washington City Board of Education and the Beaufort County Community College Board of Trustees.
- B. To develop a "Tech Prep Course of Study Guide" to serve as a complete model for our tech prep program.
- C. To prepare six year student career development plans reflecting academic as well as vocational requirements at both the high school and community college levels.
- D. To develop a curriculum matrix for each course showing ~~competencies~~ competencies that will be taught in the Beaufort County and Washington City Schools and Beaufort County Community College within courses or programs to be articulated.
- E. To prepare secondary and post secondary teachers to provide instruction in an articulated curriculum through appropriate staff development activities.
- F. To train secondary and post secondary counselors and administrators for their role in effectively recruiting students for the tech prep program, ensuring that students are placed in appropriate curriculum areas, and seeing that these students successfully complete these programs.
- G. To make plans for ensuring equal access to the tech prep program for all students who are members of special populations.
- H. To develop a plan for implementing preparatory services beginning with prevocational education at the 8th grade level.
- I. To prepare and conduct a public information/marketing program to communicate with students, parents, business/industry, teachers, administrators, and other public officials regarding the tech prep program.

- . To develop a Fellowship Youth Apprenticeship Program that will be an integral part of the Tech Prep Program including business and industry.

### OUTCOMES

- . An articulation agreement in place with the Beaufort County School System, Washington City School System and Beaufort County Community College.
- . A "Tech Prep Course of Study Guide".
- . A six year student career development plan reflecting both high school and community college levels.
- . A curriculum matrix developed for each articulated course.
- . Completion of first stage of staff development activities designed to prepare secondary and post secondary teachers to successfully implement tech prep.
- . Completion of first stage of training activities for counselors and administrators to implement tech prep.
- . A plan in place to ensure equal access to all students including those who are members of special populations.
- . A plan in place for preparatory services for tech prep beginning at the 8th grade.
- . Preparation and distribution of brochures and other printed materials as well as the successful initiation of the first stages of the marketing program.
- . Initial development of the Fellowship Youth Apprenticeship Program as a part of the tech prep program.

Beaufort County Schools

  
George Stancil  
Superintendent

4-22-93

Date


Washington City Schools

  
Dr. George Thyopen  
Superintendent

4-22-93

Date

Beaufort County Community College

  
Dr. Ron Champion, President

4-22-93

Date

# ARTICULATION AGREEMENT

Beaufort County Community College will grant advanced placement to graduates of the Beaufort County School System for the following courses after completion of the procedure process. This option for advanced placement will expire two years after the student has graduate from high school. This agreement shall be updated annually.

## BCCC Course

ACC 251 Principles of Accounting I  
ACC 252 Principles of Accounting II  
AUT 101 Internal Combustion Engines  
AUT 120 Auto Elect./Elect. Sys. I  
CSC 105 Computer Literacy  
DFT 101 Technical Drafting I  
DFT 102 Technical Drafting II  
DFT 145 Computer-Aided Drafting I  
ENG 103 Report Writing  
ENG 204 Oral Communication  
MAT 111 Technical Mathematics I  
MAT 111 Technical Mathematics I  
MKT 132 Personal Selling  
OSC 151 Keyboarding  
WLD 1201 Oxyacetylene & Arc Wld.I

## BCS Course

Computerized Accounting I  
Computerized Accounting II  
Automotive Technology I & II  
Automotive Technology I & II  
Computer Applications I  
Drafting I  
Drafting II  
Computer-Aided Drafting  
Report Writing  
Oral Communication  
Alg. I, Alg. II, & Geometry  
Alg. I, Alg. II, & Tech Math I  
Marketing  
Keyboarding I  
Welding I & II

The procedure for advanced placement of students shall be as follows:

1. The student has completed the high school course with a grade of "B" or better and requests advanced placement.
2. The student is recommended for advanced placement by the high school instructor(s).
3. Where required by the BCCC faculty, student shall pass a proficiency test.
4. The BCCC instructor recommends advanced placement for for the specific course and forwards all documentation to the BCCC registrar.
5. The BCCC registrar shall post the advanced placement on the transcript showing advanced placement. A "Pass" will be listed in the grade column.
6. The transcript will show credit towards graduation but will not carry a formal grade or grade points. The hours will not be used in calculating the grade point average.

U. R. Ch...  
President, BCCC

2-9-93  
Date

George...  
Superintendent, BCS

2/9/1993  
Date

George...  
Superintendent of WCS

## Executive Summary

Consortia Number: 92I-1

Consortia Members: Alleghany County Schools  
Wilkes Community College

ALLEGHANY COUNTY  
IMPLEMENTATION GRANT  
1992-1993

Components of the Tech Prep Program were; efforts to refine articulation agreements between Alleghany High School and Wilkes Community College; upgrade technology equipment and provide training; to provide system-wide planning and coordination of the curricula; focus on increased reading and improved writing skills; and to conduct extensive career awareness activities.

Evaluation of each objective is as follows:

**Objective**

1. to implement a comprehensive career guidance program to identify aptitudes, interests and career options for all students in grades 7-12.

**Evaluation**

- 1.1 LS Test (Learning Styles) was given to eighth grade students.
- 1.2 Voc-Ties/COPS (Vocational- Training Inventory Exploration Survey/Career Occupation Preference System) was given during the 7th grade to determine student interest.
- 1.3 CAPS (Career Ability Placement Survey) was used to focus on Career/Aptitudes and Abilities.
- 1.4 A career awareness education program sponsored by Wilkes Community College, "Keys To The Future", was presented to the sophomores.
- 1.5 Self-Directed Search was used in the eleventh grade to determine career interest.
- 1.6 Business and industry, Secondary and Post-Secondary Personnel met four times to develop an action plan to allow all 10th grade students to visit areas of career interest.

**Objective**

2. to reduce student dropout.

**Evaluation**

- 2.1 The dropout rate decreased from 3.23% to 1.66%.

**Objective**

3. to increase mastery level of technical literacy and basic skills as measured by VOCATS and End of Course Tests.

**Evaluation**

- 3.1 Gain in county Algebra 1 scores: (64 to 67.7)  
Gain in county Biology scores: (58.5 to 61.3)
- 3.2 Teams of academic and vocational attended the Integration Workshop in Greensboro Sept. 21, 22nd.
- 3.3 Business and English teachers visited a school system (March 26th) to learn how to integrate the Applied Communication Materials.
- 3.4 Agriculture and Science teacher attended an integration workshop (June 25, at Appalachian State University).
- 3.5 Tech Prep Brochure was developed .

**Objective**

4. to continue secondary and post-secondary curriculum development and alignment with Wilkes Community College relative to competencies dual credit and placement tests.

**Evaluation**

- 4.1 Meetings with faculty from WCC and Alleghany High School were held to continue articulation.
- 4.2 A consortium was formed consisting of representatives from three school districts, the WCC Dean of Instruction and the off-campus directors to monitor the Tech Prep Programs.
- 4.3 An articulation brochure was developed.

**Objective**

5. to develop a career plan for all students.

**Evaluation**

- 5.1 All ninth grade have a career development plan.
- 5.2 Teachers were trained in the Student Assistance Program (Aug. 12th, 13th and 14th) to assure students of choosing a course of study and to provide assistance to those students that are having difficulty in class.



## Executive Summary

Consortia Number: 92I-2

Consortia Members: Anson County Schools  
Anson Community College

## TECH PREP - EXECUTIVE SUMMARY

On March 23, 1992, we in Anson County Schools and Anson Community College applied for an Implementation Grant for Tech Prep Associate Degree Program. This was to be our second implementation grant. We began the Tech Prep process in 1988 with a planning grant from the North Carolina Rural Economic Development Center and the Pee Dee Council of Government.

During the preceding years, as well as this year, we have had staff orientation to the changing educational needs created by an increasingly technological world. Staff development activities were held with school and college staff.

Our grant application was given its final approval after two revision requests. Along with resources for stipends, substitute pay to allow local staff to participate in visitation or inservice activities, employee benefits, workshops, and print/reproduction, our grant allowed us to spend on supplies and materials.

The supplies and materials were for Principles of Technology I & II, Technical Math, Applied Biology/Chemistry, and Food Science.

In our new Food Service program, that we will fully implement next year, we purchased laboratory supplies, audiovisual materials, software, and textbooks.

The largest expenses were in the area of equipment for Principles of Technology I & II, Health Occupations and Food Science. We purchased State-of-the-Art equipment for these programs including a Patty Patient Model, microscope and computer for health, microscope, dehydrator, incubator, pressure canner, and microwave-broiler ovens for Food Science, and Instructor Demo and Student Station Packages for Principles of Technology.

Also, for Anson Community College we purchased twenty six graphic calculators. Last year we purchased fifty nine of these calculators for the secondary math departments.

Because of a recent fire in the administration offices at Anson Senior High, our guidance counselors have not had time to furnish figures similar to the ones we furnished last year. This information will be available later.

During the 1992-93 school year our staff development expenditures were \$7,097.00 for the secondary level and \$2,588.00 for the post-secondary level. This included sending personnel from both levels to the National Tech Prep Conference in Chicago, and also to the North Carolina Tech Prep Conference in Greensboro.

Also, we sent teams of academic/vocational teachers to Tech Prep Workshop - "High Schools that Work". We had representatives visiting other schools to observe Tech Prep progress.

Overall, we are sure the Tech Prep Grant has offered a tremendous boost to the education program in Anson County Schools and Anson Community College. We could improve, but we have come a long way in the area of academic/vocational integration and articulation between secondary and post secondary.

Especially, we are expecting great returns in the area of Food Science. There is much enthusiasm here.

## Executive Summary

Consortia Number: 92I-3

Consortia Members: Ashe County Schools  
Wilkes Community College

## **ASHE COUNTY SCHOOLS - PROJECT SUMMARY TECH PREP GRANT 1993-94**

We in Ashe County are very appreciative of the \$50,000 Tech Prep Grant for the school year 1992-93. With these funds (\$45,500 to Ashe County and \$4,500 to Wilkes Community College) we have been able to make improvements and add to our Tech Prep initiative for the students of Ashe County.

Below we have elected to address each of the nine objectives/outcomes as specified in our Grant Proposal. The disposition/status of each project objective is addressed as follows:

### **Objective 1: Publicize Tech Prep**

- . Copy of Grant to each principal and counselor
- . Copy of brochure(s) to all students in 8th grade and to all other students interested in Tech Prep during pre-registration presentations and discussions.
- . Copy of Articulated Curriculum with WCC given out by counselors to interested students
- . Article in Mountain Life quarterly, periodical which is distributed to each household in Ashe County

### **Objective 2: Staff Development**

- . Careers Program training for principals, counselors, and vocational teachers was held by Info-Disc Corporation on July 28, 1992
- . Selected teachers and administrators attended Tech Prep Conference in Greensboro in September
- . Joint curriculum - tech prep update meeting with WCC personnel (12) and Ashe County principals, counselors, and academic (9) and vocational teachers (20) March 11, 1993
- . Representative group (13) of teachers with high school principals and superintendent visited Avery County Vocational Education (Technology Emphasis) program
- . Applied Academics workshop for 21 teachers held June 21 & 22, 1993.
- . Regular meetings of Tech Prep Consortium - Ashe, Alleghany, and Wilkes Community College - have been held and have been productive.

### **Objective 3: Career Information and Guidance**

- . A comprehensive Career Guidance program (video disk) and hardware were provided for each school (4).

### **Objective 4: Vocational Curriculum**

- . Principles of Technology, Food Service, and Masonry I have been added to the curriculum for the school year 1993-94.
- . Additional computers (IBM compatible) and additional equipment for Technology Classes have been purchased and are in place. Plans are to add 19 more computers after July 1, 1993.

A CDP folder was developed and printed - all eighth grade students and most other vocational students now have a plan on file.

#### **Objective 5: Computer Competency**

Eighth grade students are scheduled for one semester of keyboarding and one semester of Exploring Career Decisions.

By the beginning of school in August, 1993 each keyboarding classroom at each high school will be equipped with 20 new IBM compatible computers - and one printer for each group of four computers.

#### **Objective 6: Curriculum Adjustment**

An Articulated Curriculum Handbook was developed by the Tech Prep Consortium and Wilkes Community College personnel. The Community College personnel had the handbook printed and it has been distributed to each school.

See the third item under objective 2.

#### **Objective 7: Academic Curriculum**

Over the past two years we have had approximately twenty-five people (teachers, principals, and central office personnel) attend the Tech Prep Conference on academic integration.

Twenty-one teachers went through a two day training on applied academics, mathematics, communications and biology/chemistry on June 21- 22, 1993. The major focus of this workshop was hands on activities, problem solving, and higher order thinking skills.

We have purchased the CORD materials for each high school. The Principals and Department Chairpersons will take the lead in integrating the applied concepts into academics classes. Vocational teachers will reinforce those concepts.

#### **Objective 8: Student Planning Program**

This past school year (1992-93) all ninth grade students in the Ashe County Schools (except self-contained handicapped classes) took some level of Algebra. Ashe County Algebra I students had a composite score of 70.5% correct on the State End-of-Course test.

Counselors are continually working with the assistance of principals and teachers to register students for more challenging courses; courses which fit the information on their Career Development Plan.

#### **Objective 9: Special Populations Students**

Special Populations Students are given the vocational aptitude assessment in the eighth grade and individual Career Development Plans are initiated by teachers, counselors, IEC, or the Special Populations Coordinators.

The Individual Transition Plans are being done for all special populations students 16 years and over by the ITP committee. The Transition Coordinating Team is in place and functioning.

As with the Academic College Prep curriculum, the improvement of the TECH Prep curriculum is a gradual process with adjustments and sometimes radical changes made along the way. In Ashe County we believe we have made a good start as we improve the educational opportunities for the tech prep type student.

## Executive Summary

Consortia Number: 92I-4

Consortia Members: Avery County Schools  
Mountain Heritage High School  
Mayland Community College

1993 TECH PREP FINAL REPORT  
EXECUTIVE SUMMARY

Partners in Technology Education  
Avery County High School  
Mountain Heritage High School  
Mayland Community College

**INTRODUCTION:** In 1992-93, Partners in Technology Education completed the second year of Tech Prep implementation in Avery County High School (ACHS) and Mountain Heritage High School (MHHS) in Yancey County. This implementation was the result of four years of planning, faculty/staff in-service, and resource development in coordination with Mayland Community College and the local industries. These years of planning and implementation have resulted in the "schoolwide revitalization" described in the Southern Regional Education Board's High Schools That Work program. Tech Prep implementation has been the catalyst for revised curricula, the elimination of the general education track, the upgrading of all studies, the integration of academic and vocational education, the involvement of students and their parents in planning for the future, the recognition of the potential of all students, and the providing of support needed to meet higher standards.

**PROGRAM DESIGN:** The program has been carried out through a signed articulation agreement between both the Avery County and Yancey County Boards of Education and the Mayland Community College Board of Trustees. The Tech Prep Program was presented in May 1990 to all boards in a joint meeting and then separately to the individual boards. The program consists of four years of high school preceding graduation and two years of higher education at a technical or community college. Both ACHS and MHHS have designed and printed a Tech Prep Course of Study which identifies the appropriate courses required for focusing the students into one of three technical strands. The required courses begin at grade level nine and continue through the appropriate certificate and degree programs at Mayland Community College, or other community colleges if appropriate (Tech Prep/Associate Degree Joint Policy Statement for NCSBE and NCSBCC).

The program consists of specific and required core courses in math, science, communications, and technologies at the high school level. These courses have been designed to lead to a specific certification or to an associate degree.

**ACTIVITIES:** The activities of the alliance over three years included: a) in-service workshops bringing the community college instructors and high school teachers together for joint discussions to develop curricula matrix and articulation agreements, b) regularly scheduled planning meetings with the high school vocational education directors and high school principals, c) join trips to state <sup>conferences</sup> principals, d) presentations before the local school boards and county commissioners, e) a business and industry survey of basic skills requirements, f) a business/industry/education workshop on basic skills assessment methods, and g) the implementation of Tech Prep curricula which began in the fall of 1991 in Avery County High School and Mountain Heritage High School of Yancey County. This implementation would not have been possible without the prior Carl Perkins - Tech Prep funding.



**REPORT CARD:** Since the implementation of the Tech Prep program in August 1991, Avery County High School and Mountain Heritage High School have reported lower dropout rates: Avery County High School from 6.38% in 1990 to 3.08% in 1992; Mountain Heritage High School from 6.12% in 1990 to 4.67% in 1992. The enrollment in Algebra I increased from 335 in 1990 to 607 in 1992 (an increase of 81%). General Math, Practical Math, or Consumer Math courses were eliminated. Applied Math increased from 0 enrollment in 1990 to 87 in 1992. Geometry enrollments remained about the same. Enrollments in Principles of Technology were 0 in 1990 and are 34 in 1992, and are expected to double in 1993-94 school year. Enrollments in Physics increased from 35 in 1990 to 49 in 1992. Prior to 1991 none of the students possessed a six year career development plan (CDP). Today, all students in grades 9 and 10 have a comprehensive CDP which includes articulation with 2 years at Mayland Community College, another community college, or a 4-year university. In addition, both schools have implemented courses in Applied Communications and Applied Math serving enrollments of 35 and 60 students respectively. Avery County High School has implemented the Applied Biology/Chemistry course using CORD material with an enrollment of 85. Also, Food Science will be implemented into the Home Economics curriculum for 1993-94. Mayland Community College has worked in cooperation with the high schools to articulate courses and to develop community college courses in anticipation of having academically prepared Tech-Prep students enroll in the Fall of 1995. It is expected that the positive trends will continue and the Objectives/Outcomes established two years ago will be achieved.

## TECH PREP FINAL REPORT FOR AVERY COUNTY SCHOOLS 1992-93

From the attached collection of data, it can be safely concluded that Avery County Schools has been able to successfully implement the goals of a Tech Prep program; to raise the level of expectation of the students, to focus on more technical courses including the maths and sciences, to articulate education beyond the secondary school level, to improve the SAT scores of the senior class, to reduce the overall dropout rate, and to integrate the curriculum to provide for more meaningful experiences for students.

With the assistance of the Carl D. Perkins Tech Prep grant, Avery County Schools has provided staff development opportunities for two technology teachers and a physics teacher to attend the two week's Principles of Technology workshop in Morganton, NC sponsored by the Division of Vocational and Technical Education; a science teacher to spend two summers for a week each at the Center for Occupational Research and Development in Waco, Texas; an Ag-Science teacher and an Applied Biology/Chemistry teacher at a workshop for integration at Appalachian State University, Boone, NC; a teacher for Applied Communication and a teacher of Senior English at a workshop for integration in Raleigh, NC; and a teacher for technology education with a teacher of electrical engineering from Mayland Community College for two summers for one week each at a workshop at the National Institute of Technology Training, Mississippi State University. In addition, all five math teachers attended a one week workshop last summer for the new mathematics curriculum and the new state tests in mathematics, including applied mathematics. Two social studies teachers attended a workshop for the Advanced Placement curriculum in social studies. Four teachers of English and two teachers of Social Studies attended a workshop for integrating the curriculum in humanities.

In addition to the above, the high school principal, vocational director, physics teacher, Principles of Technology teacher, and the teacher of Applied Mathematics presented sessions on Tech Prep implementation at the 1991-92 Vocational Summer Workshop in Raleigh, NC; at the 1992-93 Tech Prep Leadership Conference in Greensboro, NC; and at the 1992-93 Science Chairpersons Workshop in Raleigh, NC; and a one day workshop for Principals, Assistant Principals, and curriculum coordinators in Buncombe County Schools. School systems who have

visited Avery County Schools to observe our Tech Prep model include Lincoln County Schools (twice), Buncombe County Schools (twice), Surry Community College (Surry/Yadkin/Stokes County Schools), Watauga County Schools (twice), Wilkes County Schools, Yancey County Schools, Mitchell County Schools, Caldwell County Schools, Alleghany County Schools and Burke County Schools

On April 28, 1993 Avery County Schools hosted a one day Tech Prep workshop for vocational directors in the Northwest and Western Regions of North Carolina. In addition to the forty-two directors in attendance, personnel from Mayland Community College, Appalachian State University, and state staff personnel from the Division of Vocational and Technical Education Services attended and participated, including the State Director for the Division of Vocational and Technical Education Services

In summary, it is felt that the Carl D. Perkins Tech Prep Grant has assisted in the opportunity for Avery County Schools to provide successful and meaningful technological experiences which will enable our students to become world class workers by the year 1998.

## ACHIEVEMENT AND PERFORMANCE INDICATORS FOR AVERY COUNTY HIGH SCHOOL

PERCENTILE	BIO	CHEM	PHYSICS	PHYS SCI	ALG I	ALG II	GEOM	ATTENDANCE	DROPOUT 7-12	SAT
1989-90	46	52	44		64	40	44	95	4.67	813
1990-91	64	51	35	58	52	59	57	94	4.44	769
1991-92	67	55	27	64	55	53	44	95	2.57	841
1991-93 CORE AVERAGE	63.9	51	33.65	68.5	51	52.8	51.9			892*
PARTICIPATION										
1989-90	81	29	8		57	27	46			
1990-91	79	26	11	89	43	28	42			
1991-92	83	30	14	76	58	37	38			
NOTE: For 1992-93 all End of Course test results were above the state average except Physics. However, the average core score represented a gain of 3.3 points over the previous year.										
* The SAT score for 1992-93 represents 33% of the senior class participating.										

**Achievement and Performance Indicators**  
(In Percentiles and Index of Participation)

Reading/Language Achievement

	Percentile		
	90	91	92
California Achievement Test			
Grade 3 Reading*	53	45	54
Grade 3 Language*	59	58	60
Grade 6 Reading*	53	55	56
Grade 6 Language*	56	61	62
Grade 8 Reading*	50	59	54
Grade 8 Language*	49	56	54
North Carolina Test			
Grade 6 Writing (% 2.5 or more)*	57	52	64
Grade 8 Writing (% 2.5 or more)*	61	69	61
English I*	48	53	61

Science Achievement Test

	Percentile		
	90	91	92
North Carolina Test			
Grade 3*	66	57	64
Grade 6*	51	59	61
Grade 8*	52	57	60
North Carolina Test			
Biology*	46	64	67
Chemistry*	52	51	55
Physics*	44	35	27
Physical Science	58	64	
Participation			
90 91 92	86	86	87

Social Studies Achievement

	Percentile		
	90	91	92
North Carolina Test			
Grade 3*	54	62	61
Grade 6*	44	55	53
Grade 8*	47	51	55
North Carolina Test			
Economic Legal Political	50	55	65
United States History*	53	51	56

Mathematics Achievement

	Percentile		
	90	91	92
California Achievement Test			
Grade 3*	73	63	71
Grade 6*	59	64	69
Grade 8*	59	60	64
North Carolina Test			
Algebra I*	64	52	55
Algebra II*	40	59	53
Geometry*	44	57	44
Participation			
90 91 92	89	88	
73 73 70			

\* Indicates data that are included in achievement by subject area and overall achievement shown on the next page.

Percent Dropout, Grades 7-12

	1990	1991	1992
State	4.26	3.60	2.57
Local	4.67	4.44	2.57

Percent Average Daily Attendance

	1990	1991	1992
State	94	95	95
Local	95	94	95

**Outcome Indicators**  
**High School Completers**

	1990	1991	1992
Number of Graduates	148	172	139

Scholastic Aptitude Test

	1990	1991	1992
U.S.	900	896	899
State	839	844	855
Local	813	769	841

Vocational Education

	1990	1991	1992
Number of Completers	42	48	68

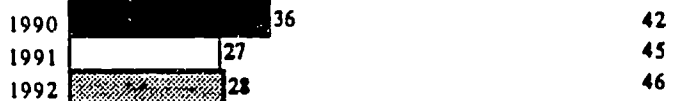
Advanced Placement Examinations

	1990	1991	1992
Number of Schools	1	1	1
Number of Candidates	16	21	12
Number of Exams	16	21	12
Number of Exams ≥ 3 (of 5)			3

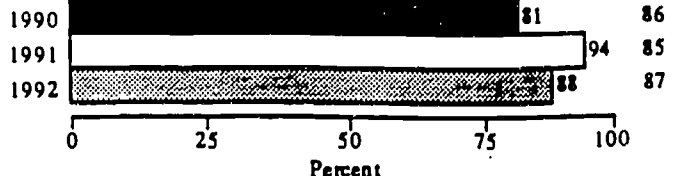
Graduates Completing  
NC Scholars Program Courses



Graduates Completing Required  
UNC Admissions Courses



Students Grades 9 - 12 Earning 5 or  
More Units Towards Graduation



## Executive Summary

Consortia Number: 92I-5

Consortia Members: Bladen County Schools  
Bladen Community College

# **BLADEN COUNTY SCHOOLS**

## **Vocational Education**

### **Don Smith, Director**

#### **Executive Summary**

#### **1992-1993 Tech Prep Grant**

The Tech Prep program in Bladen County began during the 1990-'91 school year under the direction of a former Director of Vocational Education, Mr. Alton Davis with the leadership of Bladen County Superintendent Dr. Ray Brayboy and Bladen Community College President Mr. Lynn King. The Bladen County Board of Education and the Board of Trustees of Bladen Community College passed a joint resolution endorsing the concept and encouraging the formation of the consortia.

Mr. Davis formed a committee to study the concept and develop plans for implementation in Bladen County. After a year of work the committee presented recommendations and a program was implemented. Articulation agreements were developed in: Drafting, Welding, Auto Mechanics, Business and Office Education, Agriculture Engineering, Carpentry, Agriculture Production, English and Mathematics. Several other areas were explored but the correlation was determined to be insufficient to grant advanced credit.

One of the components of the Tech Prep program in Bladen County was the establishing of a Vocational Center on the campus of Bladen Community College. This enabled high school students to make use of the laboratory facilities at Bladen Community College and made available some new courses which the county schools had been unable to provide on any campus. These included: Geriatrics, Cosmetology, Electronic Repair, and Electrical Trades. Three courses were made available to all of the students that earlier had been available only on some campuses. These were: Welding, Carpentry, and Masonry. Bladen County Schools provided the teachers for Carpentry and Masonry and Bladen Community College provided teachers for the other courses as well as the facilities for all of the courses. Bladen County Schools provided the busing for the students who needed transportation.

During the 1992-'93 school year Bladen County received a \$50,000.00 Tech Prep Implementation Grant. Of this money the largest portion went to the purchase of new high tech equipment. In the fall of the year a new computer was purchased for the Drafting lab at Bladenboro High School. The equipment consisted of a computer, monitor and plotter equipped with Version 10 of Auto

Cad. The instructor was sent to two workshops on the use of the equipment. In the spring ten new terminals were added to the system to upgrade for use with whole class instruction. A Plasma Arc cutter was also purchased for the Welding Department of Bladenboro High School. This high tech equipment enables us to have state-of-the-art equipment to use for instruction with our students.

In the spring we held a workshop on Tech Prep and Integration of Academic and Vocational Education. The workshop was attended by: all high school Vocational Education teachers, one English and one Math teacher from each high school, one Guidance Counselor, one Exceptional Children's teacher, the Assistant Superintendent for Curriculum and Instruction, the Director of Vocational Education, the Director of Secondary Education, the I.E.C., Special Population coordinator, the Director of Vocational and Technical Education of Bladen Community College, and several staff members from Bladen Community College. The presenters were: Mrs. Margaret Garrison, Director of Secondary Education for Catawba County and Mrs. Roxy Poovey, Director of Vocational Education for Catawba County Schools. The presenters explained the process they used in starting the Tech Prep program in Catawba County. They shared documents they used and reported on their status. They then lead activities on integrating Academics and Vocational Education. They assisted teachers in working on and identifying areas that could reinforce concepts and instruction. This activity will be followed up during the academic year 1993-'94 with other meetings. The teachers in attendance at the workshop will be brought back together and will work in teams at their home school developing activities and planning jointly. They will utilize staff development time set aside in half-day increments throughout the year.

The high-tech equipment and staff development could not have been accomplished without the funds from the Grant. Each teacher had a substitute paid and without this money we could not have brought together such a large group.



## Executive Summary

Consortia Number: 92I-6

Consortia Members: Cabarrus County Schools  
Rowan-Cabarrus Community College

**1992-1993 Tech-Prep Accountability Report Summary**  
**Catawba Valley Community College**  
**Hickory, North Carolina**  
**June 30, 1993**

<b>Steps/Strategies in Grant</b>	<b>Status of Completion</b>
1. Implement high school planning unit and six-year student plan.	1. CE units completed. Process in place at all four attendance zones.
2. Field-test Career Assessment and Planning Model (to include placement). A total one and five year follow-up will be part of this component.	2. Process adopted by secondary curriculum committee all phases in place except Work Keys and VoCATS (in final form)
3. Establish mastery learning stations.	3. Established in all four high schools to include VoCATS.
4. Implement one Principles of Technology program.	4. Installed at Concord High. Level II established at Mt. Pleasant High and Northwest Cabarrus High.
5. Continue incorporating Applied Communications into English III classes and selected vocational courses.	5. Installed (infused) in English program at all four high schools.
6. Implement one additional technical math course.	6. Installed in all four high schools.
7. Implement one Applied Biochemistry course.	7. Implemented at Concord High and Mt. Pleasant High.
8. Finalize implementation of CAPP process in electrical trades, technical drafting, and health careers academy.	8. Completed for electrical trades and technical drafting. Completion date for health occupations is September, 1993.
9. Implement CAPP process in math, science, English, Principles of Technology, and other courses as deemed appropriate.	9. Discussions are underway. New VP for academic programs at RCCC and Assistant Superintendent for Curriculum (CCS) providing leadership here.
10. Implement Vocational/Technical Recruitment/Orientation Process.	10. Field-test of process completed during this year. Consistent process to be implemented in 1993-94.
11. Expand and enhance staff development with special emphasis on Summer Internship Program.	11. Summer Internship program completed for counselors this June.
12. Expand and enhance public awareness program.	12. Good program underway.

**Additional Accomplishments**

1. Apprenticeship Workshop conducted and planning process initiated for all high schools.
2. Apprenticeships initiated as follows:
  - Masonry, Carpentry, and Industrial Career at Central Cabarrus High
  - Masonry at Mt. Pleasant High Schools
3. Revised the LEA Tech-Prep Accountability Report format. Three-year study to be completed by September, 1993.

## Executive Summary

Consortia Number: 92I-7

Consortia Members: Carteret County Schools  
Carteret Community College

CARTERET COUNTY SCHOOLS & CARTERET COMMUNITY COLLEGE  
TECH PREP EXECUTIVE SUMMARY OF GRANT ACTIVITIES  
1992-1993 SCHOOL YEAR

BACKGROUND INFORMATION

In September, 1990 the decision was made to initiate Tech Prep in Carteret County. Several key activities were started at that time and are still **on-going**. The following is a representative sampling of current practices included in this year's proposal.

- A steering committee was organized composed of the superintendent, community college president, assistant Supt. for curriculum and instruction, chairman of the vocational advisory committee, vocational director, and the chairman of the vocational department.
- The board of education and the board of trustees of the college were provided project orientation.
- The articulation agreement was approved and signed by both boards.
- Working Tech Prep committees at the curriculum level were organized to design a Tech Prep course of studies acceptable to both boards and to prepare a curriculum matrix so advance placements agreements could be agreed upon.
- Publicity to promote the program was begun.

STAFF DEVELOPMENT

Our major staff development activity this year was a county wide meeting with Willard Daggett, a futurist and renown spokesman for Tech Prep. Daggett reiterated the rationale for Tech Prep and injected a shot of enthusiasm for a concept that was beginning to be old hat for many teachers in the school system. Other staff development activities included:

- Matching academic teachers with their vocational counterparts to plan strategies for implementing the Carl Perkins Act--especially the requirement to integrate academics into vocational education.
- Ten vocational and five academic teachers attended the Tech Prep Conference in Greensboro, N. C.
- Vocational and academic teachers have been organized into Total Quality Managements teams. The superintendent intends to use TQM concepts as the engine to drive Tech Prep.
- All vocational teachers have received training in Vocats. Computers have been purchased for all departments so everyone will have easy access to the test generating system.
- All teachers have participated in workshops dealing higher order thinking skills.

MARKETING TECH PREP

Marketing continues to be Carteret County's strong suit when it comes to Tech Prep. Our marketing mix includes:

- Newspaper and billboard advertising
- Video Tape of Tech Prep

- Brochures--general and specific
- Video tape of Tech Prep
- Traveling Display
- Magazine advertisements
- Traveling Display
- Letters to Parents and Students
- Student Assembly Programs
- Talks to Civic and Professional Clubs

### EQUIPMENT AND FACILITIES

During the past year under the auspices of Tech Prep, five computer laboratories have been constructed--three in prevocational education and two for computerized drafting. Other building renovations include rewiring four classrooms--two for principles of technology and two for computer applications.

In terms of equipment, over \$250,000.00 has been spent on new equipment, mostly computers and related hardware. Carteret County now meets all equipment standards except in the areas of automotive technology and electricity. If the equipment standards change, however, we may again lag behind the state recommendation for quality programs.

### NEW COURSE OFFERINGS

Over the last two years, Carteret County has added five new courses to the Tech Prep curriculum. These include principles of technology, applied math, junior achievement, rural entrepreneurship, and child care services. These courses are slowly gaining acceptance by students and should strengthen Tech Prep.

### RESULTS OF TECH PREP GRANT

As a result of the Tech Prep grant, vocational education has been thrust into the limelight for the past three years. The entire community is knowledgeable regarding the vocational curriculum and the expectations the school system has for students who enroll in the program. The program, now entering its third year, has 550 enrolled in the three curriculum strands--with the largest enrollment in the engineering strand followed by business technology and allied health and human services. Another benefit is the increased enrollment at the community college--up by 206 students over last year, an increase of 17%.

To help financially disadvantaged students, we have initiated a scholarship program. Three Rotary Clubs have contributed four scholarships and we have raised over \$7,000 from various other sources.

We also have an advocacy program using business people in the community to assist students in dealing with school and job related problems.

### FUTURE PLANS

For the next two years we plan to consolidate our gains, secure permanent local funding for equipment and supplies, boost the enrollment to 40% of the student population, refine our data base and do a better job of tracking students; and more clearly define the role of guidance counselor in respect to Tech Prep. Finally we want to take another look at curriculum alignment both vertically and horizontally.

## Executive Summary

Consortia Number: 92I-8

Consortia Members: Catawba County Schools  
Catawba Valley Community College

# CATAWBA COUNTY SCHOOLS TECH PREP EXECUTIVE SUMMARY

The Tech Prep effort in Catawba County continues to be predicated upon the belief that all students deserve a challenging, relevant curriculum which will prepare them to successfully compete in a job market demanding confident, critical thinkers. Equally important is our belief that many students need much encouragement to seek such a curriculum and to believe themselves capable of meeting its academic demands. The success of our Tech Prep initiative will be directly proportionate to the efforts we expend in educating our teachers as to career demands and opportunities our students will confront. Tech Prep is not a book, a piece of machinery, nor a particular course. It is an attitude that must prevail among all educators, an attitude based on an understanding of why students must achieve and a persistent faith that all students can achieve. Catawba County Tech Prep will continue to insist that nothing less than the best is good enough for all of our students until all of our students are confident enough to make such a demand themselves.

Parts of our 1992-1993 Tech Prep grant are below to help summarize the successes of our grant:

## C. OBJECTIVES/OUTCOMES

The specific objectives of the program are to:

MET      NOT  
              MET

√

(1) implement a process for improved career decision making as evidenced by VEIS 4 information

Outcome: The response to VEIS 4, item I: Completers Whose Main Work Status is Closely or Directly Related to Vocational Program will increase by 10%.

*1991 completers - 72%                      1992 completers - 79%*

√

(2) focus and increase post-secondary intentions of students as measured by graduate intentions surveys and VEIS 4 information

Outcome: The number of students entering 4-year or 2-year colleges, trade/technical schools, or the military will increase by 10%.

*1991 completers - 30% answering no further education  
1992 completers - 22% answering no further education*

*1991 graduate intentions - 79% entering further education  
1992 graduate intentions - 84% entering further education*

√

(3) decrease the drop-out rate in Catawba County

Outcome: The drop-out rate will decrease by 1%.

*1990-1991      6.06%                      1991-1992      4.25%*

(4) increase mastery of technical literacy and basic skills as measured by VoCATS and end-of-course tests

√

√

√

√

<u>Outcome:</u>	<u>PROJECTED GAIN</u>	<u>ACTUAL GAIN</u>
gain in county English I EOC	+0.9 (67.9 to 68.8)	69.8 +1.9
gain in county Algebra I EOC	+1.8 (73.4 to 75.2)	74.6 +1.2
gain in county Biology EOC	+1.0 (64.8 to 65.8)	61.5 -3.3
gain in county US History EOC	+7.4 (66.1 to 73.5)	70.1 +4.0

**D. PROGRAM DESIGN**

YES    NO

- ✓ Joint in-service training shall be designed and delivered to train teachers to effectively implement Tech Prep curricula.
- ✓ Exceptional children's teachers will assist in offering successful methods of modifying course content to meet the needs of mainstreamed students.
- ✓ Vocational and academic articulation workshops will be held for teachers and principals.
- ✓ A leadership seminar emphasizing TQM techniques will be jointly sponsored by Catawba County Schools, Catawba Valley Community College, and local business/industry for all high school and CVCC club officers.
- ✓ Workshops for refining cooperative vocational education coordination techniques will continue next year focusing on career planning.
- ✓ Apprenticeship placements will be cultivated and filled.
- ✓ High school content teachers will develop on-site remediation components to provide students the opportunity to gain mastery.
- ✓ On-site remediation in English, math, science, social studies will be provided at each high school.
- ✓ Computer-assisted instructional assistance program will be offered at CVCC.
- ✓ Training/information programs for K-12 counselors will continue to be conducted to help them more effectively recruit students for Tech Prep and ensure that students successfully complete the program and are appropriately placed in further education or employment.
- ✓ Tech Prep Phases I-IV will be revisited to ensure effective communication between educational levels and continued interdisciplinary focus of communication, math, and science competencies.
- ✓ Community college night will be sponsored at CVCC for high school students and their parents.
- ✓ Interact '92 will be conducted to allow teachers the opportunity to visit local business and industry sites.
- ✓ Catawba Valley Curriculum Advisory Council will begin functioning.
- ✓ Courses will be updated and/or added to provide an IDEAL scope and sequence for students.
- ✓ A Career Showcase will be held for all high school juniors.
- ✓ Tech Prep student orientations and teacher orientations will be held.



## Executive Summary

Consortia Number: 92I-9

Consortia Members: Charlotte-Mecklenburg Schools  
Central Piedmont Community College

**EXECUTIVE SUMMARY**  
**1993 TECH PREP FINAL REPORT**  
**June 30, 1993**

The Tech Prep (TP) process exists in the Charlotte-Mecklenburg Schools (CMS), Central Piedmont Community College (CPCC), and the Charlotte Chamber to support the instructional plans of both educational institutions and the Workforce Preparedness initiative of the Chamber.

With "The Charlotte Process Reclaiming Our Legacy" as a guide, the Tech Prep objectives for 1992-93 were aligned with six of the fourteen CMS Recommendations (TP Objective: 5):

(Refer to the attached Tech Prep Objectives/Outcomes sheets for an explanation of the TP Objectives).

- #1. Higher Standards/Expectations - set higher standards, develop performance standards (TP Objectives: 1,2,3,6).
- #2. Make The Diploma Meaningful - require all students to master a course of study, develop profiles of competency (TP Objectives: 1,2).
- #3. Curriculum Reform - fuse work competencies to the central core courses, retire "fluff" courses, increase enrollment in higher level courses (TP Objectives: 1,3,6,7).
- #5. Vary Pedagogy, Keep Substance - master a course of study, tap into educational and career aspirations, create work experiences with academic competencies as the cornerstone, link last two years of high school vocational education with community college (TP Objectives: All).
- #11. At-Risk Students - set high expectations, personalize school (TP Objectives: 1,3,4,6,8,10).
- #14. The Community Stake - ask businesses to open doors to students for vocational training (TP Objective: 9).

In addition, the objectives were designed to prepare Tech Prep students to enter CPCC "ready for continued learning" and in conjunction with their vision "to offer programs that meet the educational, interdependent, and complex world".

To accomplish this the CPCC and CMS Tech Prep Coordinators have worked together to inform both staffs about Tech Prep. Tech Prep teleconferences that included sessions on workforce readiness, team building, and integration were hosted by CPCC. Meetings concerning special populations and career guidance as well as campus tours for counselors and students were held.

The greatest accomplishment was the continuation of the articulation process. Groups of CMS and CPCC teachers and business representatives met several times to compare competencies, discuss gaps and overlaps in curriculum, and make suggestions for articulation with the courses that currently have blueprints in the Business/Information Management Career Cluster. Also, curriculum articulation was finalized for the Health Occupations Program.

The ultimate goal of Tech Prep is to prepare graduates to enter and progress in the technical occupations of business and industry. Therefore collaboration with the Charlotte Chamber, focusing on the workforce preparedness issue, is paramount.

The Chamber worked closely with its educational partners in planning and sponsoring the "Tech Prep: A Response to Workforce Preparedness" Conference. The 2-day event attracted 250 CPCC and CMS staff members and 250 business and education participants from across North Carolina and six other states.

The purpose of the conference was to provide information about Tech Prep. Keynote speakers included Dr. Anthony Zeiss, Dr. John Murphy, Dr. Dale Parnell, and Lt. Governor Dennis Wicker. Breakout sessions highlighted: career guidance, youth apprenticeship, Tech Prep management, accountability, SCANS, applied learning, integration, and articulation.

Presently, the Chamber is putting together a business survey that will be distributed to its members. The results will be used in the further implementation of Tech Prep and the planning of a work-based learning program (i.e. School-to-Work initiative).

The 1992-93 school year can be categorized as a year of change for both CMS and CPCC. A new president and vice president were welcomed at CPCC; a new Dean of Business, Health, and Technology will arrive on July 1, 1993; and CMS reorganized and implemented a new instructional model.

It can be called a catalytic year for the Tech Prep initiative.

- The Tech Prep objectives and outcomes were meshed with the missions of all three partners.
- CMS and CPCC Tech Prep Coordinators were added.
- Three Tech Prep high schools that are linked to seven middle schools were named in January.
- Staff development was offered on Tech Prep, Applied Communications, Principles of Technology, Technical Math, integration, and career guidance.
- Curriculum articulation continued.
- A Tech Prep Course of Study that includes applied academics and technical courses that emphasize higher standards and flexibility was implemented.
- Collaboration among the partners occurred.
- Information and publicity on Tech Prep was provided both internally and externally.

The continued implementation of Tech Prep will assure that "all students acquire the knowledge, skills, and values necessary to live rich and full lives as productive and enlightened members of society" (The vision of the Charlotte-Mecklenburg School System).

## Executive Summary

Consortia Number: 92I-10

Consortia Members: Cherokee County Schools  
Clay County Schools  
Graham County Schools  
Tri-County Community College

## 1993 TECH PREP FINAL REPORT SUMMARY

Far West NC Tech Prep Consortia  
Cherokee County Schools  
Clay County Schools  
Graham County Schools  
Tri-County Community College

JUNE 28, 1993

The completion of the 1992-93 school year marks the conclusion of the first full year of Tech Prep implementation in the three school systems and the community college that constitute the Far West consortium. The year has been marked by the initiation of new high school courses as part of Tech Prep, the opening of a new comprehensive high school building in Graham County, and the undertaking of a new cooperative effort among the five secondary institutions and the community college of the consortium.

Three major areas received the bulk of funding from the 1993 Tech Prep grant - (1) staff development, (2) publicity and pre-registration campaign materials, and (3) support for specific courses within the Tech Prep curricular umbrella. Each of the major areas of funding contributes to the success of the 1992-93 Tech Prep year.

Staff development efforts included specific in-house planning/development sessions between departments for the purpose of integration of academic/vocational curricula - business/communications, science/home economics, auto technology/applied math, auto technology/principles of technology. Continued dialogue among the teachers in the 3-county area was encouraged following the successful articulation efforts of the previous school year; business and English teachers were funded for an on-site visit to a successful program in another consortium prior to summer curriculum employment to integrate Applied Communications and Business Communication into a 2-hour block. Additional Principles of Technology teachers are slated to attend two-week training sessions at Morganton. Sixteen teachers and administrators attended the Academic/Vocational Integration Conference. Representatives from each member of the consortium participated in a Telecommunication Conference at Tri-County Community College; Consortia members attended the NC Tech Prep Conference in September of 1992 and the School-to-Work Workshop at Lake Junaluska this spring. Meaningful dialogue continues among the consortium directors of the member institutions.

As an extension of Tech Prep and an adjunct to it, TCCC has developed a day-time program of college transfer courses that will accommodate the high schools' schedules. TCCC has also made available to high school students a 2-year machinist's program that expands options for high school students. Efforts toward articulation agreements with Southwestern Community College and Graham County Schools in child care and allied health programs continue.

A second area of effort may be described as publicity and outreach. In addition to spot-lighting Tech Prep in Vocation Open House and National Vocational Week activities, newspaper articles, radio spots, four billboards directed the public's attention to Tech Prep this spring. In one county, Graham, an independent business council was formed to employ each student who sought a job in private industry for the summer. Students are currently employed by Stanley Manufacturing, Peppertree Resorts, 1st Union Bank and Wachovia Bank.

In-house accomplishments include publicity to parents, and prospective students through registration packets, individual conferences, and the development of 4-year and comprehensive 4+2 education plans. Chief among the uses of the 1993 grant money was the purchase of computer hardware and software needed to update the curricula in secondary schools and to add computerized instruction in specific programs i.e. auto technology and health occupations. In addition, funds from the grant equipped Principles of Technology classrooms and labs and furnished Applied Mathematics materials, supplies, and equipment as well as funding training for teachers of these subjects.

Business hardware was updated with a networked system. Graphics calculators and materials to add Technical Math II to the curriculum were purchased. In addition, efforts continue at the middle and high school levels to develop computer assisted career guidance centers with the Occupational Interest Survey and the Occupation Outlook Handbook.

The first year of implementation Tech Prep in the far west consortium can be labeled a success. In the 3-county area covered by the consortium students consistently declare a focused plan for high school education. Currently, 50% of student have 4-year plans focused on admission to 4-year colleges, 43% declare 4+2 plans and 7% plan entry into full-time jobs after graduation from high school. These figures are fairly consistent from school system to school system and indicate that Tech Prep funding is indeed, an investment in our youth and in North Carolina.

## Executive Summary

Consortia Number: 92I-11

Consortia Members: Clinton City Schools  
Sampson County Schools  
Sampson Community College

**SAMPSON COUNTY SCHOOLS/CLINTON CITY SCHOOLS  
SAMPSON COMMUNITY COLLEGE  
TECH PREP IMPLEMENTATION GRANT**

**1992-93**

**EXECUTIVE SUMMARY**

**JUNE 22, 1993**

Sampson County Schools (SCS), Clinton City Schools (CCS), and Sampson Community College (SCC) received a Tech Prep Implementation Grant from the SDPI for the 1992-93 school year. The Grant has provided resources to ensure a well-planned, quality program designed to provide a more technically-oriented educational preparation for our graduates to compete in a global economy. Our ultimate goal is to prepare at least 85% of all Sampson County high school students through a Tech Prep or College Prep course of study, to compete in a technologically - oriented workforce.

CCS, SCS, and SCC have engaged in an ongoing articulation project for more than 10 years. Students have attended SCC under a dual enrollment agreement and, most recently, classes have been offered by SCC, under the Huskins Bill, at an area high school. Through a testing program in selected courses, students have had the possibility of advanced placement at SCC.

As a result of Tech Prep, collaboration is seen as an ongoing process and is evidenced by: 1) continuing dialogue on the provision of advanced placement and the articulation of high school courses at the community college; 2) representatives from business and industry serving on advisory boards and committees at both the high school and community college levels; 3) service organizations sponsoring or co-sponsoring job shadowing, job opportunity fairs, and career days; and 4) the local Chamber of Commerce, the County Economic Development officer, business and industry, the public schools and the community college joining in a study to determine the educational programs at the high school and community college levels that are most appropriate for the job needs in Sampson County. Never have these organizations worked so closely with the common goal of improving the quality of education in Sampson County. Tech Prep has been a uniting force that will have a major positive impact on Sampson County and its citizens for years.

The first year (1991-92) was used for planning for Tech Prep. Selecting a committee and consultant; providing orientation of the committee, schools' staffs, students, and community; conducting staff development; articulating with the community college; developing a curriculum; developing a course of study for the 5 clusters; and developing printed public relations materials.

This year was spent in implementing Tech Prep in all 5 high schools. Technology equipment was ordered and installed in technology labs in 3 of the high schools. Curriculum was reviewed and revised to help assure students received a good foundation in the fundamentals of technology. Staff development activities were provided to integrate academic and vocational education. Involvement of the public schools, community college, and business and industry continues to be emphasized.

As a result of the 1992-93 Tech Prep funding, the following objectives and outcomes were met:

1) Technology education and technology action labs have been incorporated in three of the five high schools. Fifty percent (50%) of Tech Prep grant funds have been used to purchase equipment that supports the three action labs - both Boards of



Education, as well as the Sampson County Commissioners, have financially supported this focus. Thirty-four (34%) of the grant has been used for the purchase of action lab instructional supplies, as well as supplemental materials used in other vocational and academic related areas.

2) There has been over a 35% increase in the number of students participating with business/industry through employment opportunities, activities with mentors, entrepreneurship, shadowing programs, and internships.

3) A comprehensive three-year staff development plan has been prepared based upon the needs of middle/secondary school and community college personnel. These activities were identified through Phase 4 of Tech Prep. At least 2 in-service opportunities have been provided for academic and vocational teachers to assist them in integrating the curriculum.

4) High school and community college staff have updated the curriculum matrix which was developed during the planning year of Tech Prep.

5) There has been a 24.4% increase in the number of students registered in advanced math and science courses -- Algebra I, 34%; Algebra II, 26%; Geometry, 24%; Chemistry, 20%; Biology, 21.5%; and Physics, 21%. In technology courses, for the 1992-93 school year, we show a gain of 223% registration - with the addition of new technology course offerings at two of the five high schools. Also, calculus and physics are now offered in all 5 high schools, with general and consumer math courses being eliminated.

6) Basic academic concepts and higher-order thinking skills have been integrated into all vocational programs as evidenced by curriculum articulation and alignment.

7) Early report from our high schools on End-of-Course Tests indicate an increase in overall scores in all subject areas. Greatest gains appear to be math areas.

8) Tech Prep students-especially disadvantaged and handicapped students - have received counseling on a regular basis.

9) Our 1992-93 goal is to reduce drop outs by 10%, it is too early to report the outcome of this objective.

10) Reports indicate the number of students who plan to pursue post-secondary education in a technical field of employment at a two-year or four-year institution has increased.

11) According to our individual school records there is an increase in the number of minority, limited English proficient, handicapped, disadvantaged, and high-risk students continuing their education beyond high school.

12) During the 1992-93 school year there has been a 50% increase in advisory group membership from our business and industry for the purpose of assessing the Tech Prep program. From this involvement of the advisory group, a recommendation developed for the Sampson County Commissioners to create a position entitled - Workforce Preparedness Coordinator. The major function of the coordinator will be to link the three educational institutions with the business and industry community. County Commissioners have responded favorably to this proposal.

In this overview of the first year of Tech Prep implementation, an attempt has been made to highlight major accomplishments, as well as to provide documentation relating to conservative and wise use of Tech Prep grant funds.

## Executive Summary

Consortia Number: 92I-12

Consortia Members: Craven County Schools  
Craven Community College

CRAVEN COUNTY SCHOOLS/CRAVEN COMMUNITY COLLEGE

1993 TECH PREP FINAL REPORT

EXECUTIVE SUMMARY

JUNE 24, 1993

1. BUSINESS/INDUSTRY

- Business/Industry Summer Tours - On June 14-25, 1993, thirty-one businesses/industries opened their doors to education personnel from Craven County Schools, Craven Community College, and Pamlico County Schools. The visits last from one to three hours.
- Career Development Committee - The Career Development Committee has been active in contacting Business/Industry to set up the summer tours. Members of the committee have visited each of the middle schools to explain Tech Prep to students, parents and teachers.
- Tech Prep Business/Industry Committee - We have one Tech Prep Committee that advises on the overall program and we have several program area advisory committees in conjunction with Craven Community College.
- School-To-Work Transition Team - We are working very closely with the Chamber of Commerce and the Committee of 100 to organize this team. The Chamber and Committee of 100 have done a comprehensive survey of the community and the results will be available shortly. Cherry Point NADEP has committed a TQM Facilitator to work with the Team for five full days (8:00 a.m. - 5:00 p.m.) on TQM.

2. TECH PREP SCHOOL COMMITTEE

School Committee - Each of the three high schools have an in-school Tech Prep Committee to help initiate and evaluate the Tech Prep program at the school level.

3. CURRICULUM

- Articulation - The instructors and teachers met to discuss each vocational course that is offered at both high school and community college level. The purpose of these committees is to eliminate repetition and to explore advanced placement opportunities.
- School Committees - Each of the three high school faculties have been divided in cluster teams to help enhance integration of academic and vocational courses.
- Courses Added To Implement Tech Prep - Electronics, Principles of Technology, Apprenticeship, Health Occupations, and Applied/Technical Math.
- Applied Communications, Applied Biology/Chemistry and Workplace Readiness will be integrated into the curriculum in 1993-94. The teachers have been trained and they have the materials.

- Craven County Partners In Education - Partners in Education conducted a Mentc Program for students to help them better understand the needs of business/industry.
- College Activities - Two College activities which are examples of how Tech Prep initiatives are blended into College functions are our technical/vocational advisory committees and our faculty involvement in NC Department of Community Colleges Technical/Vocational Curriculum Improvement Projects (CIP). Both involve business/industry leaders who work with educators to help establish and maintain up-to-date courses and programs by advising and assisting in program planning, development and evaluation.  
 High school teachers participate on a number of College advisory committees, which provide a link between our systems as well as with business/industry.  
 Craven Community College was funded to lead the Management-CIP for 1992-94. In addition to Management-CIP, college faculty participate in other curriculum-specific statewide CIP activities - such as electronics, early childhood, automotive, industrial maintenance - which also provide faculty technical up-grading.
- Applied Courses Staff Development - A core group of teachers have been or will be trained in Applied Technical Math, Applied Communications, Applied Biology/Chemistry, and Workplace Readiness.

#### 4. MARKETING

The Marketing Committee decided to move the responsibility for Marketing Tech Prep from the central office level to the school level. This would allow for individual needs that could be better addressed at the school level. Some needs can best be met at the central office level and they will remain there. It is too early to tell if the move will produce the results that we want.

#### 5. GUIDANCE COMMITTEE

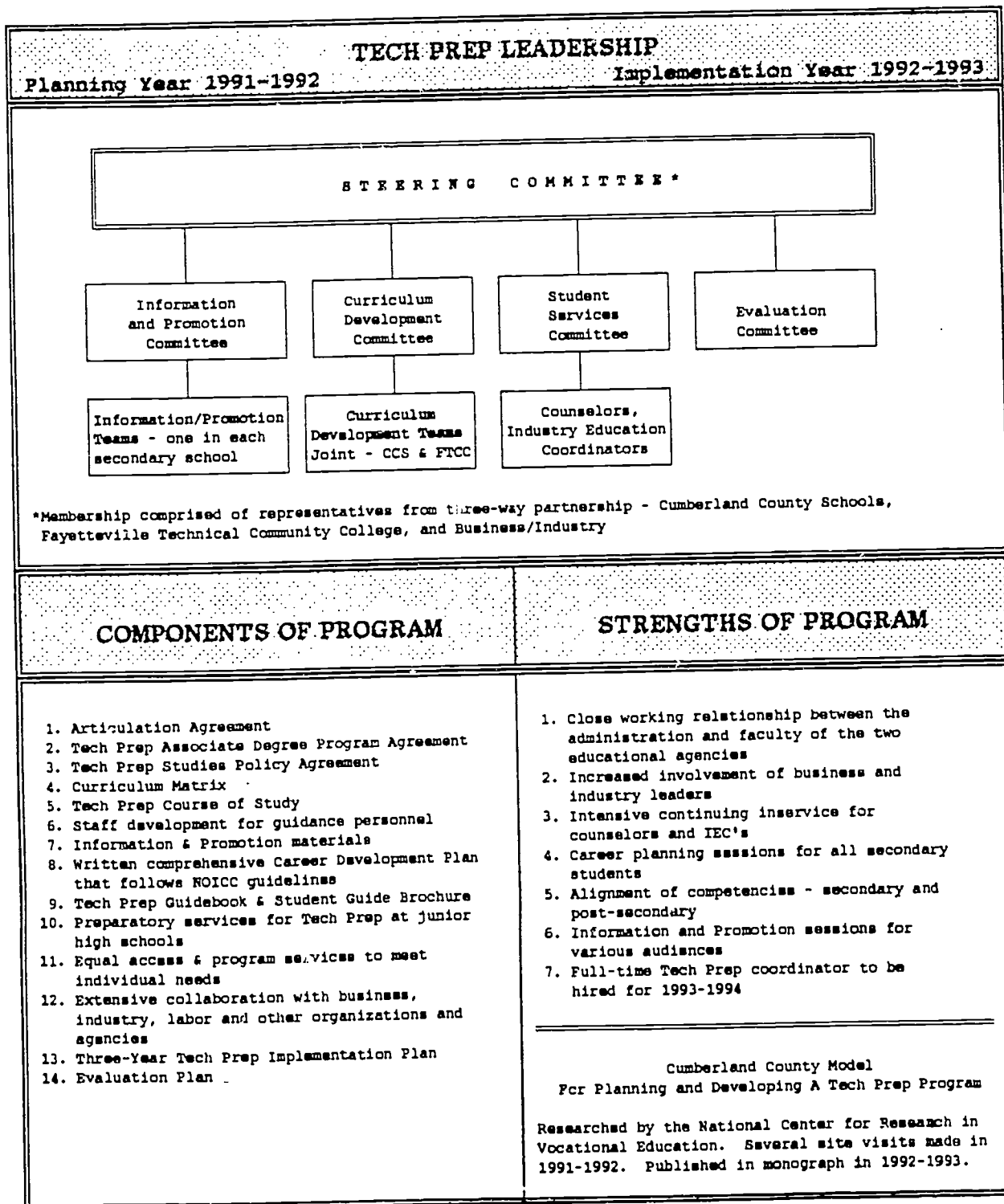
One goal of the Guidance Committee was to develop a K-14 Guidance Plan. This comprehensive plan includes career exploration activities, interest and aptitude testing, informational meetings for students and parents, student tour of various businesses and industries in Craven County, goal setting and career planning activities. The implementation of the Guidance Plan has resulted in the shadowing program utilizing community mentors, a Health Careers Information and Enrichment Workshop in conjunction with the University of North Carolina at Chapel Hill, a Senior Day on the campus of Craven Community College, which allows all high school seniors to hear presentations of various careers from community representatives and Tech Prep presentations. Students were not the only beneficiaries of the Guidance Committee efforts. Public school and community college personnel participated in guidance activities also. A Business and Industry Tour is scheduled annually featuring various companies in a multi-county area. The purpose of the tour is to provide greater understanding of employer educational needs. Also, some teachers had the opportunity to shadow various professionals at the Marine Corps Air Station Cherry Point.

## Executive Summary

Consortia Number: 92I-13

Consortia Members: Cumberland County Schools  
Fayetteville Technical Community

**EXECUTIVE SUMMARY**  
**Cumberland County Tech Prep**  
**June 22, 1993**



## IMPLEMENTATION YEAR 1992-1993

### 1. SPECIAL ACTIVITIES FOR TECH PREP STUDENTS

ENROLLMENT - 467  
TECH PREP STUDENTS  
1992-1993

- . Special Scheduling Considerations
- . November - Tour FTCC
- . February - Industry Tours
- . March - T-Shirt Logo Contest
- . School Mentoring Programs
- . School Conducted Activities
- . Applied Classes
- . Career Planning and Individual Guidance
- . April - T-Shirts Distributed

### IMPLEMENTATION GOALS -- 1992-1993 Objectives/Activities

1. Verify Tech Prep student enrollment per course/program required
2. Support night high school Curriculum Integration Teams
3. Establish calendar of activities focused on career planning initiatives and registration/enrollment for students by Student Services
4. Expand and upgrade courses in Tech Prep Course of Study
5. Continue Information and Promotion efforts

### 5. INFORMATION & PROMOTION

- New Promotional Items -- '92-'93
  - . Tech Prep News Monthly Video
  - . Tech Prep Placement Courses Poster
  - . Balloons for Displays
  - . Pencils & Puff Balls for Students
  - . Tech Prep Buttons
  - . Banner for School Hallways
- Plant Managers Association adopted Tech Prep as their project for 1992 - 1993
- Tech Prep County Fair exhibit
- Flyers in FWC and Cablevision billings

### 2. CURRICULUM INTEGRATION TEAMS' ACCOMPLISHMENTS (Academic & Voc Teachers)

- . Proposals written by each school
- . Participated in Integration Teleconferences
- . Teachers teamed, planned and developed integrated lesson plans
- . Participated in field trips
- . Participated in local and state sponsored workshops
- . Participated in County Fair Tech Prep exhibit
- . Made suggestions for common planning periods and special scheduling for Tech Prep students in 1993-1994

### 3. STUDENT SERVICES

- Guidance departments developed plans for Career Planner Portfolio and Four-Year Plan Completion
- Staff Development For Year
  - . DAT results interpretation
  - . CHOICES computer program
  - . 6 full-day cluster tours at FTCC
  - . Registration Procedures Workshop
  - . Tech Prep Enrollment Goals for each district were set, explained and analyzed
  - . Tech Prep emphasis at monthly counselors and IEC meetings
- Eighth grade tour for 480 potential students - March

### 4. TECH PREP COURSE OF STUDY

- . Revised by Curriculum Development Committee & Teams
- . Technical math staff development was held in February for math teachers, counselors, IEC's, and principals
- . Principles of Technology expanded to 7 of 8 high schools
- . Food Science - 2 high schools
- . Computer Applications II expanded to 8 high schools
- . Health Occupations - 8 high schools - Increased enrollments and personnel
- . Technical Math expanded to all 8 high schools

## ADDITIONAL ACCOMPLISHMENTS

### Steering Committee Member Presentations

- . State Voc & Tech Ed Consultants
- . LEA's Receiving Planning Grants
- . NC Tech Prep Conference
- . National Tech Prep Conference
- . Career Exploration Teachers Summer Workshop 1992
- . Counselors & Administrative Groups
- . State-wide Teleconference in Career Development & Tech Prep
- . Local half-day session - 45 participants who requested assistance outside of Cumberland County.

### Additional Requests

- . Cumberland County packets mailed out upon request to 124 systems or individuals.
- . Approximately 1,000 phone calls requesting assistance in beginning or implementing Tech Prep.

**System-Wide  
Tech Prep  
Enrollment Goal  
7,500 by 1996**

2,500 - 1993-1994

2,500 - 1994-1995

2,500 - 1995-1996

tech  
prep

**A Foundation  
For Success**

### Evaluation

- Final Report for '91-'92 completed in September.
- Computerized program reports developed to monitor program success. Reports to be run Summer 1993.
- Tech Prep student satisfaction survey administered May 1993.

**Sample Results  
Ten-Item Survey  
From 387 Respondents**

- . Given enough information? 309
- . Helped you realize relationship between courses and careers? 314
- . Recommend Tech Prep to other students? 336
- Tentative Tech Prep student count - 1442 for 1993-1994. Count to be finalized September 15, 1993.

## Executive Summary

Consortia Number: 92I-14

Consortia Members: Davidson County Schools  
Lexington City Schools  
Thomasville City Schools  
Davie County Schools  
Davidson County Community College



DAVIDSON/DAVIE TECH PREP CONSORTIUM  
EXECUTIVE SUMMARY OF 1992-93 PROJECT ACTIVITIES

The Davidson/Davie Tech Prep Consortium is composed of Davidson County Community College and the Davidson County, Davie County, Lexington City and Thomasville City School systems. During 1992-93, consortium representatives met a total of twelve times to plan and coordinate various project activities as follows:

- ° Advanced Credit/Placement (7/16/92)
- ° 91-92 Final Report Preparation (8/20, 9/15 and 9/25/92)
- ° Articulation Steering Committee (9/2/92)
- ° Articulation Follow-up (10/22/92)
- ° Staff Development Planning (3/9/93)
- ° 93-94 Grant Proposal Preparation (3/26, 4/5, 4/14 and 4/22/93)
- ° 92-93 Final Report Preparation (6/10/93)

These meetings resulted in the development of the various reports and proposals required by the state agency as well as updated articulation agreements for all consortium members, updated advanced credit/placement agreements, and staff development opportunities in CAD, technical writing, and writing across the curriculum.

In addition to these joint ventures, consortium members focused the majority of their time and resources on their individual systems' needs. Because the needs and opportunities for growth were different among the systems, activities are highlighted below in this manner.

Davidson County Schools

- ° Visited Avery County High School to observe integration model and P.T.
- ° Supplied Applied Communications materials for review by English dept.
- ° Conducted integration projects at each high school.
- ° Supported the use of Applied Math materials in the math departments.
- ° Participated in the DCCC co-op program.
- ° Sponsored staff development in Portfolio planning and middle grades curriculum.
- ° Participated in Tech Prep/Career Development workshop.
- ° Participated in High Schools that Work workshop.
- ° Supported staff development in Principles of Technology.
- ° Revised and printed course of study brochures.
- ° Conducted 8th grade parent/student Tech Prep orientation sessions.
- ° Conducted Career Planning Portfolio development project.
- ° Conducted a project to develop a career development model.
- ° Promoted Tech Prep through presentation, media, and promotional items.
- ° Updated technology in agriculture, business and drafting programs.
- ° Added Fundamentals of Technology course and planned for two new P.T. programs.
- ° Supported VoCATS implementation efforts.
- ° Worked with SIMS supervisor on Tech Prep monitoring.
- ° Worked with IEC's and SPC's on monitoring of special populations T.P. students.

Davie County Schools

- ° Visited Freedom High School to observe P.T. program.
- ° Supplied Applied Biology/Chemistry materials for review.
- ° Revised and printed course of study brochures.
- ° Conducted 8th grade parent/student orientation sessions (2).
- ° Continued career guidance program development.
- ° Upgraded technology in vocational programs using local funds.
- ° Sent drafting teacher to CAD workshop.
- ° Established Principles of Technology program with one section.

- Promoted Tech Prep throughout the community.
- Conducted a Tech Prep parents night for high school parents.
- Planned for participation in Cooperative High School program, 93-94.
- Offered an advanced computer course through DCCC at Davie High School.
- Worked with SIMS operators to devise ways to monitor Tech Prep students.
- Supported the use of Applied Math materials in the math dept.
- Participated in efforts to establish a satellite campus of DCCC in Davie Co.

#### Lexington City Schools

- Sent teachers to fall Tech Prep conference in Greensboro.
- Sent teachers to Integration workshop in Greensboro.
- Implemented Applied Math program by teaming P.T. and math teachers.
- Completed K-12 math alignment project.
- Expanded P.T. program to full-time for 93-94.
- Implemented computerized keyboarding class at 6th grade level.
- Supported Technology workshop in Winston-Salem.
- Continued career guidance program development.
- Began initial steps to implement apprenticeship training program.
- Held parent/teacher orientation sessions.
- Promoted Tech Prep at civic club meetings.
- Supported VoCATS implementation through district and state workshops.

#### Thomasville City Schools

- Established a P.T. program with one section.
- Visited several school systems to observe Applied Math courses.
- Implemented registration conference program for students in grades 8-11.
- Produced Tech Prep video for Channel One broadcast.
- Promoted Tech Prep in the community through the media and civic organizations.
- Sent drafting teacher to CAD workshop.
- Upgraded technology in business dept. using local funds.
- Sent P.T. instructor to P.T. II workshop.
- Placed Tech Prep banners in each vocational classroom for advertisement.
- Supported VoCATS implementation efforts through a local workshop.
- Provided Applied Communications materials for use in English classes.
- Presented Tech Prep information at four registration assemblies.

#### Davidson County Community College

- Acquired new computer and print material resources for Career Center.
- Equipped lab for Principles of Technology instruction and increased the number of student lab stations.
- Increased visitations to consortium schools to stress community college role in preparation for technical careers.
- Updated all consortium high schools on Tech Prep advanced placement courses.
- Updated articulation agreements with consortium school systems.

In summary, while specific activities varied among consortium members, all members were involved in efforts to integrate subject matter, increase articulation with the College, provide staff development opportunities, foster career development activities, upgrade technology, increase accountability, and promote Tech Prep in general. The project continues to be a significant catalyst for change within the consortium. Much remains to be done. Until technical preparation is valued equally with a four year college degree by society, and until a corresponding change in focus is accomplished in public education, our work will not be complete.

## Executive Summary

Consortia Number: 92I-15

Consortia Members: Durham Public Schools  
Durham Technical Community College

# DURHAM PUBLIC SCHOOLS TECH PREP GRANT EXECUTIVE REPORT 1992-1993

## INTRODUCTION

Durham Public Schools will soon complete its first year as a merged system. Because of the demographic and academic performance differences in the two former systems the time and effort expended in making the transition has been tremendous.

The TECH PREP effort has been a significant force in the development of the new merged system bringing the schools, community and business and industry together to ensure a superior education for all students in the school district.

The TECH PREP effort in the Durham Public Schools system has made great strides to train staff and others in TECH PREP programs, procedures and possibilities. The TECH PREP effort has presented all students grades eight through eleven the challenge of actively preparing for their future in the technologically advanced workplace.

## PURPOSE

The specific goals for implementation in 1992-1993 were:

- increased public awareness of the TECH PREP course of study
- comprehensive staff development of middle school, high school, and community college teachers and counselors
- continued curriculum integration and articulation in appropriate vocational and academic courses in high school and at the community college
- continued development of procedures for advising students in the middle and high school grades about future careers and post-secondary educational options.

## OUTCOMES

The following accomplishments were made in relation to the TECH PREP effort during the 1992-1993 academic year:

- Several opportunities were provided for the Durham Public Schools and Durham Technical Community College teachers, counselors and administrators to learn about TECH PREP. The Cumberland County model was investigated. Teachers and counselors attended the N.C.TECH PREP workshop and a group of teachers administrators, Industry/Education Coordinators and counselors attended the National TECH PREP conference in May, 1993.

- Teams of teachers participated in the Integrated Approach to Learning workshops in Greensboro.

- Durham Public Schools sponsored an Applied Math Workshop which received excellent evaluations from the participants.

- Much time and effort was spent to develop a TECH PREP brochure which was distributed to every 8th, 9th, 10th, and 11th grade student in the system. This brochure reflected the TECH PREP course of study developed by the curriculum committee.

- A resource notebook was developed to assist teachers and counselors in explaining the TECH PREP program to students and parents. A copy was made available to each counselor in the system.

- A library of resources for teacher and student use has been started for the system with the purchase of videos, computer programs, applied math materials and career assessment batteries.

- Members of the steering committee have presented TECH PREP to a wide variety of groups in the community. Our brochures have been distributed at each meeting.

-A massive effort was made to develop education plans for each student enrolled in the 8th, 9th, and 10th grades. This was accomplished through the english classes at the same time TECH PREP was presented. Students also begin a CAREER PORTFOLIO which was in use in some schools. The system is attempting to refine the portfolio for systemwide use.

## SUMMARY

The Durham Public Schools TECH PREP effort has impacted many students on the 8th, 9th, and 10th grade levels this academic year. Through the career planning and the information distributed and explained on TECH PREP and COLLEGE PREP courses of study students have begun to consider seriously their options for education and training. The relationship between school and the work world has been visualized by students. It is hoped that each student has an educational plan for his/her high school years and a direction for options beyond high school. As the TECH PREP effort continues in Durham Public Schools the intergration of academic and vocational curriculum and the articulation into post secondary options will increase.

## Executive Summary

Consortia Number: 92I-16

Consortia Members: Edgecombe County Schools  
Tarboro City Schools  
Edgecombe Community College

## TECH PREP 1993 FINAL REPORT

Edgecombe County/Tarboro City Schools and Edgecombe Community College

The 1993-1994 year for Edgecombe County/Tarboro City Schools and Edgecombe Community College began with the following goals: (1) make Tech Prep more visible, (2) involve more administrators, teachers, counselors, and business/industry personnel in staff development, (3) increase the number of students enrolled in Tech Prep, and (4) increase student retention through improvement of technical literacy and basic literacy skills of high school graduates.

### Comprehensive Marketing Package

To begin the 1992-1993 school year, letters and the VOCATIONAL EDUCATION JOURNAL issue on Tech Prep were mailed to selected teachers and employers. The Executive Director of Tarboro-Edgecombe Chamber of Commerce met with the Tech Prep Project Director, IEC Coordinators, and the Vocational Director to discuss Tech Prep concepts and to offer assistance in implementing the Tech Prep Program in Edgecombe County.

A marketing firm was used to promote Tech Prep. A unique slogan, "Nothing Less Than Total Success," and a logo were created. Stadium cups, posters, brochures, and folders were developed and given to students, teachers, and administrators. T-shirts were purchased. Banners are on display in all the middle schools and high schools to advertise Tech Prep. Edgecombe Community College also received a banner for display. Posters have been designed and used to advertise Tech Prep. Prior to registration, newspaper ads and articles were used to promote Tech Prep.

During Vocational Education Week, (a) there were presentations given at the middle schools and high schools by a professional speaker on Tech Prep; (b) IEC Coordinators and the Tech Prep Director visited local industries and met with employers/parents during breaks to communicate Tech Prep concepts. Displays, handouts, and videos were used; and (c) IEC Coordinators, the Special Populations Coordinator, and the Tech Prep Project Director presented Tech Prep information to interested parents at the middle schools.

A project review and budget report was presented by the Vocational Director to the superintendents in March to update the principals, counselors,



and other administrators on the progress of Tech Prep. The Tech Prep Project Director has attended conferences, made contacts with business and industry, and will speak to the Rotary Club in June on Tech Prep.

#### Staff Development

Efforts were made throughout the year to involve more teachers, support staff, and administrators in staff development activities. Integration conferences were held, and math, technology, marketing, and English teachers attended. The Vocational Director and the Tech Prep Director visited Greene Central High School to discuss Schools That Work and the integration that is being done in their high school. CORD materials for math have been purchased for North Edgecombe High School, and an examination set was acquired for SouthWest Edgecombe for the math chairperson to review. In addition, staff development is in the planning stage for math teachers. Integration occurred at Tarboro High School in the teaching of Principles of Technology and Physics.

A Total Quality Team was organized and strategies were developed to assist in accomplishing the goals of vocational education.

#### To Increase the Number of Students Who Enroll In Tech Prep

A survey of College Prep and Tech Prep enrollments of 9th grade students reveals an increase from 72% in 1991-92 to 79% in 1992-1993. This increase is due to the efforts of teachers, support staff, counselors, and administrators.

#### To Increase Student Retention

While the dropout rate for grades 7-12 has shown a recent decline, our system has set ambitious milestones in the school improvement plans. Rates from 1.78% at Tarboro High School to 3.01% at SouthWest Edgecombe High School to 4.37% at North Edgecombe High School do provide an opportunity for improvement. Rates for 1992-1993 are not available at this time.

#### Summary

Tech Prep in Edgecombe County/Tarboro City Schools has been successful in meeting the goals established by the grant this year. Guidance counselors and services have provided more support for Tech Prep, Principles of Technology has been added as a new course at two high schools, state of the art equipment was ordered for one high school, integration of vocational and academic courses has occurred, and there is an increase of students who have CDP plans. We need to continue to work to have more involvement by students, teachers, parents, and administrators in the Tech Prep process.

## Executive Summary

Consortia Number: 92I-17

Consortia Members: Harnett County Schools  
Central Carolina Community College

## **TECH PREP PROJECT SUMMARY**

### **IMPLEMENTATION 1992 - 93**

During this first year of Tech Prep implementation in the Harnett County School system, we have accomplished many worthwhile things. The Implementation Grant stated ten objectives for the year. All ten objectives were met or addressed in such a way that expected outcomes should be achieved. This will be determined by longitudinal follow-up data. They included such items as increasing the number of graduates attending post-secondary institutions, enrolling students in the appropriate vocational and academic courses for success in post-secondary technical programs, decreasing the number of students enrolled in remedial courses at the high school and community college level, upgrading the technical skills of academic and vocational teachers, providing staff development in counseling skills, promoting the integration of instruction at grades 9 - 14, providing opportunities for students to assess aptitudes and interests, providing technical and other assistance regarding concepts and strategies of Tech Prep to students, parents, and the community, establishing courses in Electronics, Health Occupations, and Technical Math, and refining the curriculum matrix for grades 9 - 14.

One of the major accomplishments of this year was the inservice training of academic and vocational teachers in the concept of integrated learning. Twelve teachers attended the Tech Prep Conference in September, twenty-seven teachers worked on the articulation efforts with the community college and ten teachers attended the High Schools that Work: An Integrative Approach seminar and returned to put ideas to work and began this year integrating geometry, algebra, and carpentry. We have teams of vocational and academic teachers in each high school trained in the following area pairs: agriculture and science, business and English, Home Ec and social studies, and T and I and mathematics. An Integrated Vocational-Academic Educational Field Day was held on May 7, 1993, at Triton High School.

Harnett County has also made great strides in its articulation efforts with CCCC. Articulation efforts have occurred in the following areas: Agriculture Education, Business Education, Marketing Education, Trade and Industrial Education and Mathematics. Twenty-seven secondary teachers from Harnett County and twenty-six from the community college were involved in nine separate workshops involving articulation. We now have twenty-two courses articulated for CCCC transfer credit. We also have two secondary courses certified for credit under a cooperative agreement with CCCC.

Through a combination of Tech Prep grant funds and local funds, the guidance departments at the high schools and middle schools administered aptitude and interest inventories (Differentiated Aptitude Test with Interest Inventory) to all students in grades eight through eleven. Using this information, career aspirations of the student, model "Secondary Education Plans for Career Preparation" provided by SDPI, and individual counseling sessions, an education-career plan was developed for each student using the 4 + 2 or the 4 + 4 concept. Orientations, Tech Prep occupational information, and brochures and other materials were provided to students, parents, the community and teachers. Counselors also developed customized booklets on Tech Prep, College Prep and Occupational Prep for each high school and middle school.

In order to promote the program and to keep parents, students the community and teachers aware of the program and the advantages it offers, we have produced and printed the following materials: Tech Prep Brochure, Tech Prep Program of Study Guide. Tech Prep/Occupational Prep Handbooks, College Prep Handbooks, and articulation brochures.

Representatives from the Central Office, the high schools, the middle schools, counselors, community schools, business and industry and the community college serve on the Tech Prep Steering Committee.

## Executive Summary

Consortia Number: 92I-18

Consortia Members: Haywood County Schools  
Haywood Community College

# 1992-93 TECH PREP SUMMARY REPORT

## HAYWOOD COUNTY SCHOOLS

## HAYWOOD COMMUNITY COLLEGE

The 1992-93 school year was the first phase of implementation of Tech Prep in Haywood County. We have made progress in several areas. However, we still have a substantial amount of work left to do before we could be considered fully implemented. The majority of the effort this year was concentrated on continued integration of academics and vocational education. Seeking to upgrade the vocational courses with higher standards of academic expectations and place an emphasis on practical application in the academic courses.

Our greatest need for success with this program is more quality time for staff development for our teachers, administrators and guidance departments. We are making two changes next year that will have an impact on our vocational programs. We are moving the ninth grade to the high schools, changing from junior highs to middle schools, and changing our schedule to a seven period day. The middle school move is permanent. However, the seven period day is on a trial basis. There are mixed feelings about the new schedule. Initial results have indicated an increased enrollment in vocational classes due to students having more elective courses. Problems with this schedule include a shorter class period and teachers being required to prepare for an additional class with a smaller allotment of planning time.

Our second most pressing issue for success of Tech Prep in Haywood County is an educational campaign for students and parents about career planning. Peer and parental pressure is still focused on entering a four year college as the predominant goal for our students. Our guidance departments estimate approximately sixty percent of our students indicate they are interested in the college prep course of study. Statistics indicate that closer to twenty-five percent of students actually enter a four year college upon graduation. Hopefully in the coming year we can bring these two statistics closer in line with each other.

The following is a brief summary of the activities we have undertaken this year to start implementation of Tech Prep in Haywood County.

Tech Prep Workshop in Greensboro(fall, 92)--focus on Total Quality Management, attended by the Superintendent and Vocational Director.

Integration Workshops in Hickory & Greensboro(January/February, 93)--focus on integration of academics and vocational education, attended by five academic teachers, 4 vocational teachers and Vocational Director. This group was divided into two teams, part attended the Hickory meeting, part attended the Greensboro meeting, due to schedule conflicts.

CORD materials were purchased to teach Applied Mathematics at both high schools. Math department chairpersons and the teachers that will be using this material were included in this decision to purchase. Calculators and Accu-Line Drawing kits were also purchased for use in the Applied Mathematics course.

Supplemental materials were purchased to teach Applied Communications Skills at both high schools. These included selected units of the CORD materials, Working & American Dreams by Terkel, and Technical English: Writing, Reading and Speaking (1993, Foresman). These materials were selected with assistance from the English department chairpersons and teachers that have attended the integration workshops.

Integration materials have been developed for academic courses through cooperative efforts between vocational and academic teachers in the following areas. This primarily occurred under last years planning grant during the Summer of 1992. However, the duplication and distribution of this material occurred during the 1992-93 school year

Job skills booklets and Career Develop Plans have been develop by our Industrial Education Coordinators. These have been duplicated for use at the middle schools and high schools.

Equipment has been purchased for use in the Principles of Technology I course at each high school. Local funds of approximately \$45,000.00 were coupled with Tech Prep funds to make this purchase. This course has been added at each high school for the 1993-94 school year. Additions are currently under construction at each high school, due for completion by the first of August. These facilities will house the new Principles of Technology courses.

Haywood Community College hosted a luncheon/meeting involving administrators, guidance counselors, Industrial Education Coordinators and additional key personnel involving Tech Prep from the middle schools, high schools, and community college on April 26, 1993. Presentations were made regarding the progress being made, initiatives under way and our continued focus at both levels on making Tech Prep work.

Research has been conducted on materials for a new Career Center at each high school. Computers and software have been purchased to provide interactive assessment and career information for students. Research is also currently being conducted on linking the libraries from our high schools with Haywood Community College and Haywood County Public Library.

Tuscola High School has been developing a video to use for recruitment purposes at the middle schools. This has not been completed as of this date.

We are currently involved in three staff development initiatives that focus on Tech Prep. The first concentrates on developing a course description, outline and materials for a senior math course. This course will be designed for the Tech Prep student that may not otherwise enroll in a math course. It is intended to be practical and challenging. This is to help our students prepare for the required math courses at Haywood Community College and/or entering

the work force. Academic and vocational teachers are cooperatively developing this course. The second initiative is to develop the Examinations for Credit that Haywood Community College will give to Tech Prep students requesting advanced credit. These tests are being developed by high school and community college instructors for specific courses that are included in our articulation agreement. High School instructors have been given directions to include VoCATS objectives and test items in the materials they contribute. The third activity is to develop a marketing strategy for Tech Prep in Haywood County. Vocational teachers have been given the charge of developing materials for use by students, parents, guidance counselors and administrators to better inform them of the advantages and opportunities presented by Tech Prep. These teachers have also been given the responsibility of developing a promotional campaign, including utilizing the media, billboards, etc. and recruitment for key courses such as Principles of Technology.



## Executive Summary

Consortia Number: 92I-19

Consortia Members: Kings Mountain City Schools  
Cleveland County Schools  
Shelby City Schools  
Cleveland Community College

## TECH PREP ANNUAL REPORT 1992-1993

The Cleveland Tech Prep Associate Degree Program is particularly unique in that it is a collaborative effort on part of Cleveland Community College and the three Cleveland County School Systems: Cleveland County, Kirtland District, and Shelby City Schools. It is also unique in that the initiation of this project was a direct result of the concern identified by Cleveland Challenge, a task force appointed by The Chamber of Commerce, of over 300 citizens who identified education as the most important strategic economic concern in Cleveland County. The group identified education as one of the strong components in Cleveland County for improving economic development practices in the County, Tech Prep being identified as a major contributor. The Chamber has offered support to the effort through publicity, identifying speakers from business/industry population for presentations in our schools, and industries/businesses in the area have opened their doors for tours, offered scholarships, have adopted schools, and also offered materials/supplies for classroom use. The Cleveland Industrial Relations Committee has recently supported the Tech Prep program with a donation of \$2,000 toward scholarships for Tech Prep students. The Cleveland Quality Sharing Group, made up of engineers and representatives from education, has provided education with the opportunity to enroll in workshops conducted by industry. This effort has acquainted educators with the type of staff development required by the business world and enabled them to see and hear first hand the importance of technical skills in the workplace. Teachers have been given a current view of the world of work and opportunity to open positive avenues of working together in the future. Over seventy teachers participated in these industry workshops. Another noteworthy activity of the program was the RJR Tech Prep Most Outstanding Community Person award to Chuck Early of Kemet Industries for his strong commitment to Tech Prep and his support of education. Under Mr. Early's leadership a one day EXPO '92 was viewed by over 2000 students, teachers, and persons from business and industry. The cooperative effort between the three school systems in the County and Cleveland Community College has been phenomenal. It is a first for the four schools to work together collaboratively to improve student academic and vocational/technical skills. Over 200 teachers, guidance counselors, administrators from Vocational and Technical Education, Communications, Math, Science and Social Studies compared curriculum and competencies in programs between secondary and postsecondary education and then developed a plan of action. Regular dialogue between these groups continues. The Tech Prep program was the direct response to the concerns of The Chamber. The intent of the Cleveland Tech Prep Associate Degree Program is to provide the majority of students with the opportunity to become part of a technically sophisticated workforce needed to attract new industries and businesses to Cleveland County, while still meeting educational needs and life-long goals of the students.

Number and percentage of students by grade enrolled in Tech Prep:

Grade	Number	Percent
9	497	42%
10	407	36%
11	150 *	26%
12	117 *	22%

\*The class of 1995 (10th graders on the chart above) will be the first full class to graduate from the Tech Prep Program; however, the 11th and 12th graders chose to be in the program and had the required prerequisites.

The integration of vocational education and academics has been a major effort of the Tech Prep Program. Over 11 vocational/technical and academic teachers and administrative staff have attended state and local workshops on integrated curriculum. This has resulted in over thirty teams of vocational/technical and academic teachers working cooperatively.

Drop-out rate comparison:

1988-1989	1991-1992
6.65	2.24

Staff Development activities as a direct result of Tech Prep began with a county-wide Tech Prep Rally to hear Willard Daggett, nationally known for the leadership role he has assumed in educational reform. Dr. Daggett spoke on the future of work and education in America. The first implementation year emphasis was on integrated curriculum. The focus this current year was on Higher Order Thinking Skills, lead by Dr. Barry Beyer, professor of Education at George Mason University in Fairfax, Virginia. All the endeavors were county-wide efforts off at Cleveland Community College. Initiated by the Quality Sharing group, over 70 teachers have participated in training sessions in various industries throughout the county. Plans are now in progress to invite a teacher-student to attend these workshops sponsored by industry.

One of the more evident results of faculty and staff involvement and support of Tech Prep has been the development of individualized educational plans for over 90% of students in the three systems. This was total commitment on part of the staff members to achieve this goal. Tech Prep Steering Committees have been organized at each of high schools to coordinate activities such as Total Quality Management and the Effective School Movement.

**Comparison of 1993 seniors planning to continue their education with the figures prior to implementation of Tech Prep:**

Seniors	Number	Percent
1990	705	69%
1993	763	83%

**Number and percentage of 1993 students enrolled in the courses listed below:**

Courses	Number	Percentage
Algebra I	1,097	26%
Geometry	624	12%
Algebra II	638	18%
Physics	159	3%
Principles Of Tech.	58	2%
Advanced Biology	202	6%

**The number of persons involved in the Tech Prep Program:**

People Involved	Number	Percent
Vocational Teachers	71	100%
Counselors/Support Staff	19	100%
Academic Teachers	123	85%
Administrators	47	100%
Students	4312	100%
Parents		100%

Almost 100% of students now have individualized educational plans. Industry and education are working together to provide training for students that will prepare them for workforce 2000. Vocational and Academic teachers are working cooperatively to integrate these curriculums. An increase in number of students taking more technical courses and improved curriculum focusing on technology are successful examples of the Tech Prep Program.

## Executive Summary

Consortia Number: 92I-20

Consortia Members: Macon County Schools  
Southwestern Community College

## EXECUTIVE SUMMARY

Macon County School's purpose in applying for a Tech Prep Implementation Grant was to provide better programs that meet student needs and to guide students into courses that form sound vocational, technical and academic foundation on which to build their futures. To this end we have strived to meet the objectives and outcomes as stated in the grant application for 1992-93.

A Career Resource Center has been established at Franklin High School and is staffed by an Industry Education Coordinator. The center provides assessment services to students as well as counseling and job placement services. A shadowing program is also a part of the Career Resource Center's services.

Career development plans have been prepared for all upcoming tenth, eleventh and twelfth graders. In addition, the present eight grade students completed a career development unit and developed a career development plan.

Counselors, teachers, and administrators from Macon County Schools and Southwestern Community College were provided with opportunities to participate in staff development activities related to their respective curriculum areas as well as the Tech Prep Conference in September and the Curriculum Integration conference in January.

VoCATS equipment and software was purchased and installed at each of the applicable schools. Training was offered to teachers by the VoCATS Coordinator on using the system and teachers were strongly encouraged to use the Test Item bank for interim testing.

Applied Communications, Applied Biology/Chemistry and Principles of Technology were offered at Franklin High School. Nantahala School offered Principles of Technology II and Applied Math. Several different new teaching methods were employed with excellent success teaming academic and vocational teachers.

Although no study has been done, indications are that more students are enrolled in a course of study that will prepare them for post-secondary education. State mandates requiring all students to have an Algebra I credit when they graduate and increasing the number of academic requirements as well as local initiatives to provide career guidance to students have produced positive results.

Initial work has begun to add Health Occupations and Business curricula to the articulation agreement with Southwestern Community College. With the implementation of VoCATS and the push to use blueprints developed in conjunction with VoCATS, course content has been standardized. Therefore much of the work has been done since Jackson County and Swain County have Business and Health Occupations articulation agreements with Southwestern Community College in place. With very little adaptation, we will be using the same agreements to articulate students to Southwestern Community College with advanced placement for successful completion of designated courses.

Nantahala School now has complete Principles of Technology labs for both Level I and Level II. These modules were purchased with Tech Prep funds. In addition, curriculum materials and supplies have been purchased for Applied Communications and Applied Biology/Chemistry. With the additional \$10,000 received in March, computer equipment was purchased to computerize the Technical Drafting lab.

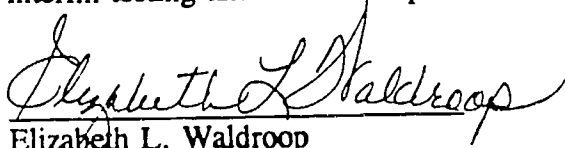
Prior to registration for 1993-94 school year, approximately 75% of the students received individual counseling and assessment to determine their course needs in order to pursue their career goals. The Discover program was used and career development plans prepared to facilitate this goal. The Industry Education Coordinator was responsible for this component of our plan. Equipping and supplying the Career Resource Center was done with Tech Prep funds.

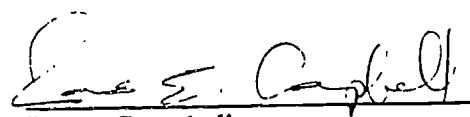
The Vocational Department and Exceptional Children personnel work closely to assure that special populations students have equal access to the full range of technical preparation programs. Vocational personnel contribute to transition planning for these students and interest and aptitude assessment is done by the IEC using the Discover Program.

The three year evaluation plan is just now in its formative stage. Enrollment has increased in some of the applied curriculum courses and it is anticipated this trend will continue as potential 1996 graduates move through their academic programs and there is a demand for more science and math electives. Statistics are not yet available on enrollment and drop-out rates at Southwestern Community College for students that graduated this year but these students will be traced over the next three years.

A program is in place to have CDP's on all high school students by school year 1994-95 in the Franklin area. Incoming ninth graders prepare a CDP in the spring of their eighth grade year. These will be updated through the English classes each year with the help of the IEC.

VoCATS pre- and post-testing was done this year and reports are being generated to give us some ideas to to our progress. Teachers have had access to the test item banks to use for interim testing and course blueprints have been provided and utilized in course planning.

  
Elizabeth L. Waldroop  
Macon County Schools

  
James Campbell  
Southwestern Community College

## Executive Summary

Consortia Number: 92I-21

Consortia Members: McDowell County Schools  
McDowell Technical Community College

## Summary For 1992-93 Tech Prep Grant

McDowell County Schools and McDowell Technical Community College accomplished all the goals and objectives as outlined in the Tech Prep Grant Implementation Grant. The grant allowed for flexibility in trying new and innovative approaches to accomplish desired outcomes. Staff development for teachers and administrators occurred in the areas of integrated learning workshops, registration seminars, retreats for the purpose of sharing information with entire faculties, and sending personnel back to business and industry for awareness in the work place. Many successes have been accomplished with this grant but the following outline will summarize the major points:

### 1) Integrated workshop

McDowell High School was represented at Greensboro by 10 faculty members at a workshop on integrating academic and vocational courses. The participants included: One counselors, one (IEC), two math teachers, two science teachers, two English teachers, and two vocational teachers. These teachers came back with new ideas that could be used in the classroom and a greater appreciation for all subjects taught. These teachers want to work in classrooms with vocational teachers for the 93-94 school year, to reinforce what vocational and academic teachers teach.

### 2) Registration process

Our registration process changed as a result of Tech Prep. In order to make sure that students were registering for the correct course in their course of study. Registration was a one on one process. Staff development for the registration team was taught in a seminar setting. The team formed a panel of five different individuals which centered at one station. The panel reviewed each students four year career plan and selected courses related to their career objective. The team consisted of a representative from each academic discipline, one vocational teacher, one counselor, and one administrator.

### 3) Book selection

Marketing and business education was up for the State textbook adoption for the 1993-94 school year. The articulation between schools became apparent when McDowell High School requested the support of McDowell tech to help in the selection of the textbook to be used at the high school level. The two schools now have similar textbooks and curriculum which will be conducive to concurrent enrollments.



#### 4) Equipment update

The computer and drafting lab was the recipient of most of the equipment money spent out of this grant. McDowell County Schools now have a state of the art computer lab with networking and a link-in to the media center. Drafting has 12 stand alone computer stations with release 10 as the software necessary to teach computerized drafting.

#### 5) Retreat

In February, the entire faculty and administration from McDowell Technical Community College along with McDowell County Tech Prep Committee held a joint meeting to share information with the McDowell Tech faculty about tech prep. Many suggestions were made on how to increase tech prep to different vocational disciplines and to improve the ones already in existence. The meeting was beneficial if for no other reason than to discuss and share common goals and problems that exist in education.

#### 6) Back to Industry

The back to industry program has been developed in cooperation with leaders from the Chamber of Commerce, Business and Industry, McDowell Technical Community College and McDowell County Schools. A recent survey of former McDowell High students revealed that approximately 34% of graduates move directly into jobs and another 35% enroll in community, technical or trade schools.

In order to adequately prepare these students, teachers must have a basic knowledge of the skills needed to enter the world of work. The Back To Industry Project will provide an opportunity for a select group of teachers to spend one week in a local business or industry. The overall goal of this program will be the development of a practical knowledge of personnel needs and individual skills required to support the local work force. Special emphasis is a basic understanding of the dignity of all work and the economic impact of local business and industry to our standard of living.

The objectives include:

1. professional development of the teacher
2. broadening school perspective on business & industry
3. improved relationship between adult work force and the schools
4. more class visits to the work place
5. more parent involved in the life of the school
6. greater opportunities for work experience for students

## Executive Summary

Consortia Number: 92I-22

Consortia Members: Mitchell County Schools  
Mayland Community College

Executive Summary Report of the 1992-93 Tech Prep Implimentation Grant  
Mitchell High School  
Mayland Community College

The Tech Prep Grant of 1992-93 has allowed much progress to take place with our consortia. Much planning had been done since 1988 and the grant has made many of our plans become a reality.

During the last year we have implemented applied math which has had much success and with the addition of Applied Math II next year we expect even more success for our students. We have integrated Applied Math with Algebra and feel that this approach will assure the students accomplishment of the new Algebra requirement.

Applied Communication was integrated into one English IV class this year using the Applied Communication Modules. The teacher was very interested in the program and felt that it would be of great benefit to the students. Next year we will be following the Macon County model by team teaching English and Business during a two hour block. This change, we feel, will better prepare the students for their post secondary career. The two teachers were given time this summer to integrate their curriculums and also were able to attend the Applied Communication Workshop in Raleigh this month.

Principles of Technology lab and material were purchased this year. Due to scheduling problems we were unable to implement the course as we would like to. Next year, the course will be in full implementation. The teacher who will soon be certified, has been visiting other schools in the area, talking with the instructor at Mayland Community College, and has taken the two week workshop in

Morganton which should meet his certification requirements. The lab will be located in a room that will be used for this course only so the labs will not have to be taken down daily if it is not needed. The Physics class is scheduled so that there will be the ability for integration of the two courses. The Physics teacher and the PT teacher were given time this summer to work together on integration strategies.

A Tech Prep brochure was developed and delivered to every parent and student prior to registration. Two nights were devoted to incoming freshmen orientation and registration. The first night was used to present the Tech Prep program to parents, present and explain the COPS and CAPS results, and explain and answer any questions about Tech Prep. The second freshman night was used to register students for the upcoming year and develop four year career development plans. Both nights went very well. Mayland Community College provided a billboard in each county promoting Tech Prep. This seemed to promote very good public relations and much interest. Mayland also sponsored a job fair which all senior students attended. We heard very favorable comments about this program and hope to work with Mayland again next year to sponsor the same type program.

One of the greatest benefits I feel that has stemmed from the implementation of Tech Prep this year is the way the faculty as a whole has come together. During this year, 25 members of the administration and staff attended workshops and staff development activities. This is over 50% of the faculty involved in the Tech Prep program.

## Executive Summary

Consortia Number: 92I-23

Consortia Members: Nash-Rocky Mount Schools  
Nash Community College  
Edgecombe Community College

## EXECUTIVE SUMMARY: TECH PREP PRESENTATION

### Nash-Rocky Mount Schools/Nash Community College

Prior to the July 1, 1992 merger of the Nash County and Rocky Mount City Schools, the two systems were already uniting under the banner of Tech Prep. Through an implementation grant, Rocky Mount was beginning to get their initiative under way. Nash County, having received a planning grant, was in the initial stages, and worked closely to coordinate their efforts with the Rocky Mount program. One of the first "jointly sponsored activities" prior to merger was a trip to South Carolina to visit the PACE consortium. A delegation from the two systems, along with a representative from Nash Community College spent time together creating the "vision" for the new system. The consensus of the group was that we already had the significant pieces of the puzzle in place, but there was a real need to begin involving business and industry and to make significant efforts in the way of curriculum development.

When the school year finally began, we were a new system, with a new superintendent, and a new vocational director. Students and staff were introduced to the system-wide theme: **"We're Positively Serious About World Class Schools"**, along with the four goals of **Achievement, Behavior, Community, and Development**. Groundwork for the Tech Prep effort had already begun with Nash Community College through a cooperative agreement developed prior to the beginning of school. Several representatives attended the State Tech Prep Leadership Meeting in September.

Through a combined effort of the Nash-Rocky Mount Schools, Nash Community College, and The Area Chamber of Commerce, a Business-Education Summit was held at the Gateway Center in Rocky Mount and attended by several hundred representatives from education and business/industry. During the day, participants focused on the skills needed in today's workplace. Tech Prep was also recognized as one of the "right things" the schools should continue.

Many of the participants from the Summit were identified to serve on the Tech Prep Steering Committee. The winter months were filled with committee meetings as curriculum decisions were made, marketing materials were developed, and a course of study began to take shape.

The spring was also a busy time as our articulation efforts were intensified. Nash Community College worked closely with the secondary teachers as course content was scrutinized for gaps and/or duplication. A total of twenty courses were identified for advanced placement credit with six courses being offered through a cooperative agreement.

One of the most successful activities with the community college was an all day workshop conducted for guidance counselors. It included an update on the secondary

system-wide school improvement plan, an update on the Tech Prep effort, and comments from the community college on articulation and cooperative program agreements. Demonstrations from Principles of Technology and Electronics were included to give counselors a "feel" for the programs.

By April marketing materials were ready to be distributed. In an effort to respond to concerns identified at the Summit in October, the theme "**Tech Prep--Preparing a Workforce for a New Century**" was chosen, with all marketing materials being designed to coordinate with the system-wide materials. Much time was spent in developing a Course of Study chart, with ideas being "borrowed" from many other brochures in order to combine the best, including: courses for college prep, listing elective choices, coding those courses that carry advanced placement credit, and color-coding the columns for ease of identification.

As the Course of Study evolved, it became obvious to everyone that it could be a very valuable planning tool. Therefore, when the very first course description handbook was developed for the Nash-Rocky Mount School System, it included the Tech Prep Course of Study as its centerfold, along with the career education plan being used for guidance. The Course of Study was also used as an ad in the local newspapers during registration this year.

The business community has responded to our intent to include apprenticeships as a part of the Tech Prep program by jointly funding a new position with the school system: a Coordinator for Workforce Preparedness. The Chamber has also funded a full-time Manager for the Education Division of the Chamber.

Working with these two individuals, we have recently conducted our first Summer Institute for teachers. The institute included an opportunity for forty teachers to spend time in area business/industries in order to develop instructional materials focusing on skills needed in the workplace. This curriculum package will be presented at the Second Annual Business-Education Summit being planned for October 1, 1993.

Video: (30 sec. PSA)

## Executive Summary

Consortia Number: 92I-24

Consortia Members: Onslow County Schools  
Coastal Carolina Community College



**ONslow COUNTY TECH PREP PROGRAM**  
**Preparing Today For The Challenges Of Tomorrow**  
**1992-93 Tech Prep Final Report**

Within Onslow County, support for the Tech Prep "4+2" educational concept has grown from a 25-member task force of interested business, industry and educational leaders in 1990 to the development of a 350-member collaborative partnership between Onslow County Schools, Coastal Carolina Community College and numerous local business and industry representatives. Through the additional support of a 1991-92 Tech Prep planning grant, Onslow County Schools and Coastal Carolina Community College were able to further expand the orientation and promotion of Tech Prep, as well as to accelerate the development of appropriate "4+2" program curricula and student registration materials.

Much has been accomplished in Onslow County since 1990, relative to planning, development, and marketing of Tech Prep. However, 1992-93 proved to be an important year as the Onslow County Tech Prep Program began actual implementation of revised "4+2" curricula, advanced program agreements, and expanded student guidance services. Don Herring (Vocational Director, Onslow County Schools) and Walter Timm (Executive Vice President, Coastal Carolina Community College) served as coordinators for the 1992-93 Tech Prep Implementation Grant. Specific objectives, strategies, and activities which were implemented during the 1992-93 school year are summarized as follows:

1. Development and Refinement of Current Tech Prep "4+2" Curricula: Eight curricula review teams met a minimum of three times each during the 1992-93 school year to review and/or refine 1991-92 Tech Prep education curricula recommendations for each of the three established program areas (Business/Marketing, Health/Human Services, and Industry/Technology), to reflect new or deleted academic/vocational course offerings, revised North Carolina graduation requirements, and current community college admission policies.
2. Development and Refinement of Tech Prep Advanced Placement Program Agreements: During the 1991-92 school year, advanced placement course agreements were developed and approved by Onslow County and Coastal Carolina Community College Business and Marketing Instructors for the following high school courses: Business Law I, Accounting I, Typing I, Computer Applications I, and Computer Applications II. For 1992-93 each of these agreements was reviewed and revised as necessary to reflect instructor recommendations.

3. Implementation of Staff Development Training for Counselors: Staff development for counselors was one of the most important components of the 1992-93 Tech Prep Implementation Grant. All middle school, high school, and community college counselors (22 counselors total) participated in three training activities relative to Tech Prep guidance and counseling. During August of 1992, the same 22 counselors (grades 8-14) participated in a two-day workshop designed to increase their knowledge and use of labor market information related to Tech Prep counseling and career choice.
4. Implementation of Staff Development Training for High School and Community College Instructors: Over 40% of the overall 1992-93 Tech Prep Implementation Grant focused on quality in-service training activities for high school and community college instructors. Joint training activities were conducted in the following areas: Cooperative Learning, Learning Styles, the Total Quality Classroom, and Workforce Readiness for the 21st Century. One hundred and twelve high school/community college instructors participated. Individual staff development training grants were made available to 14 selected high school/college instructors for specialized skill training. Twenty-five high school/community college instructors participated in a one-week industry internship through PROJECT R.E.A.C.H. (Researching Educational Areas in Corporate Habitats).
5. Integration of Secondary Academic and Vocational Education Curricula: Over the past year, selected math and vocational teachers from each of the six high schools received training and demonstration materials for Applied Mathematics I (48 teachers total). For 1992-93, Applied Mathematics I was offered in each high school. A total of 473 students were enrolled countywide. Selected academic and vocational teachers from each of the six high schools also began reviewing and training relative to the implementation of Applied Communications and Applied Biology/Chemistry curricula within their schools in 1993-94.
6. Development of a Comprehensive Career Guidance Program: Although there was a career guidance program within each of the middle and high schools in Onslow County, there was no formal linkage of career guidance services between middle schools and high schools or between the high schools and the community college. During 1992-93, school and community college counseling personnel developed a comprehensive career guidance program which outlined the transition of career guidance services in grades 8-14. An additional focus was directed toward career guidance services for students in grades 11 and 12 to insure their successful transition from high school to postsecondary education or employment.
7. Purchase of Tech Prep Educational Program Equipment: Based on the recommendations of the Tech Prep Steering Committees, \$22,000 of specialized instructional and demonstration equipment was purchased for three secondary

vocational program areas: (1) Computer Assisted Drafting, (2) Automotive Technology, and (3) Business and Office Technology.

8. Tech Prep Marketing and Promotional Materials: Approximately \$6,000 was used to develop revised internal and external marketing and promotional materials for the 1992-93 Onslow Tech Prep Program. Marketing and promotional materials included the development and use of brochures, newspaper ads, and radio spots.
9. Development and Implementation of Comprehensive Student Follow-Up: In order to monitor and evaluate short-term and long-term effects of Tech Prep relative to educational achievement and employment, Onslow County Schools and Coastal Carolina Community College shared in the development and implementation of a comprehensive student follow-up program for Tech Prep students. Students will be monitored throughout their enrollment in high school and community college. Employment follow-up data for students will be maintained for three years after their graduation from community college.

#### SUMMARY:

The collaborative efforts brought about by the unifying effects of the 1992-93 Tech Prep Program were numerous and positive. At the secondary level, vocational and academic instructors worked together to integrate academic and vocational curricula through the use of applied academic training materials. High School instructors and counselors met quarterly with their community college counterparts to compare and coordinate course competencies, and to develop advanced placement agreements, 4+2 career information material and opportunities. Through collaboration between secondary and postsecondary educators, over 300 educators were involved in the 1992-93 Tech Prep Program.

Business and industry leaders and agencies such as the Economic Development Commission, Chamber of Commerce, and the Manufacturers Resource Council also assisted Tech Prep through business industry incentive programs such as the Business Assisting Schools in Educating Students (BASES) program. BASES provides an awards system to business and industry sponsors who support the public schools through their donations of materials, equipment, employee volunteers, and specialized services. Finally, over \$30,000 of Vocational, Technical, and Tech Prep Scholarships were given to selected 1993 Onslow County high school graduates through the collaborative fund raising efforts of the Coastal Carolina Community College Foundation and Board of Trustees.

## Executive Summary

Consortia Number: 92I-25

Consortia Members: Orange County Schools  
Alamance Community College  
Durham Technical Community College

**TECH PREP  
ORANGE COUNTY SCHOOLS, ALAMANCE COMMUNITY COLLEGE, AND  
DURHAM TECHNICAL COMMUNITY COLLEGE**

Orange County Schools have been involved in developing a Tech Prep program since September, 1990, when a small group of interested people from Orange County Schools, Alamance Community College and Durham Technical Community College met to discuss the concept and the possibilities it offered for improving education in the area.

In the beginning, the tech prep planning committee in this area of the state included a consortium of five school systems and two community colleges, since students from all these systems feed into the same community colleges and labor market.

Early into the process, the group, being so large (Burlington City, Alamance County, Durham City, Durham County and Orange County Schools, as well as Alamance Community College and Durham Technical Community College) decided that each school system would work independently with their designated community college.

Since that time, academic and vocational teachers from the Orange County School System, Alamance Community College, and Durham Technical Community College have been working together aligning their courses, developing curriculum matrices and articulation agreements and planning strategies for integrating their programs for mutual reinforcement. Teachers, administrators, school board members and business and industry representatives have attended state and national Tech Prep conferences and visited model programs in Richmond, Guilford, and Catawba Counties.

Orange County Schools were fortunate to have several exemplary models to use as a guide for planning and implementing tech prep. Many of the components of Richmond County and Catawba County were incorporated into this system's process.

Subsequent to the endorsement of a tech prep program in Orange County by the curriculum council, the Board of Education and the superintendent, Dr. Andrew Overstreet, the presidents of the two community colleges, Dr. Ronald McCarter and Dr. Phail Wynn, publicly endorsed the joint effort at an orientation meeting at Orange High School in March, 1991.

In August, 1991, a kickoff luncheon symposium sponsored by the original consortium members, was held at the Omni Europa Hotel in Chapel Hill to provide a comprehensive overview of tech prep, as well as integration and technical training needs in current and emerging jobs. The meeting was well-attended by academic and vocational representatives of all participating systems, as well as those from business and industry and area agencies.

Following the orientation described above a steering committee was appointed by the superintendent and presidents of the community colleges to oversee efforts and to monitor the continuing work of five committees: curriculum development, preparatory service and guidance, public awareness, special populations, and evaluation.

## Committee Accomplishments

### I. Curriculum Development:

- a. Articulation efforts (see attached Articulation Matrix)
- b. New/Integrated Courses: Principals of Technology, Workplace Readiness, Applied Math, Applied Science, Tech Lab and Biotechnology at middle school, Alamance Community College and Orange County Schools personnel are discussing the possibility of offering electronics, auto mechanics and cosmetology to Orange County School students through Alamance Community College.
- c. Upgraded courses: home economics, business, and drafting

### II. Preparatory Services and Guidance

An integrated system has been purchased for assessment, career exploration, remediation, and educational/career planning (Choices, Jr., Choices, Career Assessment Battery, VocTIES, TAP, U.S. Basics, and SOICC); Career Development Planning Information gathered from this coordinated effort will be used as the basis for initiating the four-year education, training plan (CDP).

### III. Public Awareness

Orientation and update presentations were given to school administrators, area leaders and high school teachers and students, community college instructors, guidance counselors, PTSA groups, Chamber of Commerce, Rotary and Kiwanis Clubs and Advisory Council members; announcement on public service TV; newspaper articles; articles in Orange County PR materials; video highlighting the need for math and science and post-secondary education, brochures (in business offices, distributed at orientation sessions and mailed with pay checks), banners (in schools and businesses, and hung across major thoroughfares, articles in student handbook.

### IV. Special Populations

The Special Populations Coordinator and Industry Education Coordinator for the high school and the Career Development Coordinator for the middle schools work as a support services team with guidance counselors to provide assessment, career development and transition services for special populations.

### V. Evaluation

The Evaluation Committee is collecting base line data and developing a format for evaluation, using the report previously required by SDPI for evaluation of tech prep programs as a guide. VoCATS will be used to measure competency in vocational and technical areas.

Collaboration among the three educational systems has been a positive experience for the participants. The "turf" issue which was once a major barrier to collaboration is disappearing, but the issue of "inadequate time" has taken its place.

Tech prep requires constant attention, and administrative support if it is to be sustained. This has implications for school planners. Scheduling time for staff development, planning, and collaboration must be a priority issue when planning for school improvement, and tech prep must be considered one of the vehicles for outcome based education.



# Orange County Schools/Alamance Community College/Durham Technical Community College

## Tech Prep Articulation Matrix 1992-93

	OHS	ACC	DTCC	Comments
Business/ Marketing	ASO I & II	*in process	Records Management, Busi. Comm., Word Processing I & II, Prof. Development, Admin. Office Pro.	AP-DTCC
	Computerized Accounting Keyboarding Computer Applications I & II	Accounting I-ACC 120 *in process *in process	*in process Typewriting I & II EDP 103 - Intro. to Micro Comp. EDP 205 - Spreadsheet Applic.	AP-ACC AP-DTCC AP-DTCC
	Marketing Small Busi./Entrepreneur.	*in process *in process	*in process *in process	
	Horticulture I & II	Intro. to Horticulture HOR 101		
Engineering/ Industrial Technology	Carpentry I & II Technical Drafting I & II	Carpentry Mech. Draft. Tech.	*in process *in process	AP-ACC
Health/Human Services	Health Occupations Child Care I & II	Health Technologies *in process	Health Technologies *in process	

## Executive Summary

Consortia Number: 921-26

Consortia Members: Pitt County Schools  
Pitt Community College



# Executive Summary

## 1993 Tech Prep Final Report Presentation

### Pitt County Schools - Pitt Community College

Since our first serious discussions about Tech Prep in late 1989, the administration and staff of Pitt County Schools and Pitt Community College have committed themselves to the implementation of a successful Tech Prep Program for the students of Pitt County. With the awarding of the \$49,477 Tech Prep Implementation Grant in the summer of 1993, we received the funds needed to get several major initiatives underway that will help lay a strong foundation for our future efforts.

We planned our grant activities to focus on four major areas. The information in this Executive Summary provides a brief description of those four areas.

The first being to help us add the Principles of Technology (PT) program to the two high schools in our school system that did not have the program. Grant funds enabled us to purchase labs 1-7 for the first year of the program at both schools. The availability of the grant funds helped make possible the re-direction of other LEA funds to purchase the second year labs as well. As a result we now have all five high schools with labs 1-14 in place. The grant has also assisted us in making it possible for three of our PT teachers to attend the PT Summer Workshops.

The second area of focus was on the strengthening of our career development program/process in the public school system. We firmly believe that much of the success of our efforts to implement Tech Prep will hinge upon the strength of our career development/career guidance program. To begin this strengthening process we chose to remedy the fact that our counselors have not had access to the same basic career development or career guidance tools (i.e. interest inventories, career resources, etc.) across the school system. With grant funds we purchased access to a computerized guidance system that provides on-line career and educational exploration exercises for students. A networkable version of SIGI PLUS was installed in each school with training on its application and use provided at Pitt Community College by Atlanta-based staff of the Educational Testing Service. In addition to SIGI PLUS, we purchased the micro-computer version of the Self-Directed Search (SDS), a widely used interest inventory. SIGI PLUS and SDS, with proper use will help us get our career development process on track.

We realize that tools alone will not turn our career development process around, that we must also help those directly involved with it to better understand the work world our students are facing. Last summer we conducted a workshop targeted at middle grades counselors designed to give them first hand experiences in a variety of occupations that require upgraded and technical skills and knowledge. From all indications the workshop was well received and has made a positive impact on the participants, as evidenced by their actions during the school year. We refer to this as a Pre-Tech Prep Workshop and will be conducting a similar activity this summer that will reach even more of our counselor group.

In addition to the previously described activities, we felt the need to make materials available to our staff that more clearly outlined student options and the application of our Tech Prep Course of Study. Using the Division of Vocational and Technical Education publication Secondary Education Plans for CAREER PREPARATION as a base, we produced a series of thirty-six brochures, divided by our Tech Prep strands and personalized for Pitt County. They are being used with students to help them develop their Career Development Plan, and, with parents to help them understand the need for students to be focused as they progress through high school. Staff use the brochures to show that, with proper planning, a student can be a Tech Prep student and still have a four-year college program as an option, in addition to the associate degree focus of Tech Prep.

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It should be noted that one benefit we have realized from SIGI PLUS is that through the encouraged use of the software by English, social studies, and other academic teachers, we have seen a significant increase in activities that integrate vocational and non-vocational curriculum. Students are relating what they are learning in their academic courses to its application in the working world. In short, SIGI PLUS has become a tool in the integration of our curriculum.

Our third area of focus was one of staff development, with two major emphases. The first dealt with the need to encourage and motivate teachers to integrate their curriculum horizontally, as well as vertically. We made plans to conduct a workshop on the integration of vocational and academic curriculum at the secondary and post secondary levels. However, after learning that the state agency was planning to conduct a similar workshop in Greenville for eastern North Carolina school systems, we proposed a collaborative effort. As a result, we were able to have a stronger workshop, and, hopefully, move even closer to our goal of having an integrated curriculum. Our workshop was to be a bit different than the other Integration Workshops SDPI planned to conduct in that we wanted to include our Pitt Community College staff. We believe that the techniques for integrating a curriculum are more or less the same at all levels of education. Therefore, postsecondary staff could benefit from the same sessions as secondary staff. Participants came from twelve eastern North Carolina school systems and from Richmond, Virginia. All of the community colleges in northeastern North Carolina were invited to attend. Unfortunately, only Pitt Community College staff participated. Followup has shown an increased interest in academic and vocational teachers working together to plan and conduct integrated activities for students. The workshop also served as a support for the efforts we have made to align curriculum with our postsecondary programs. The second area of emphasis was to try to inform and educate parents and students of the changing workplace needs and the relationship between education and employment. Our approach to this task was to design a presentation and to make it available for parent nights, civic groups, assemblies, and other such groups. While we reached a significant number of our target groups, we know that we only touched the surface and feel that we need to take a different approach to this during the coming year.

The fourth area dealt with continuing and improving our marketing efforts. Our initial plans included the development, on our own, of two video tapes for use in our marketing program. We also projected the purchase of radio spot ads to be used primarily at the time registration was to begin for 1993-94. As we began to focus on carrying out this objective with our projected strategies, we re-assessed our plans and decided that the polish we needed for our video would require professional assistance, and that the funds we had budgeted for this (\$2400) would not be sufficient. We also concluded that a properly done video would have a greater and longer lasting impact than the radio spots we had proposed to buy. We further concluded that we could, through other funds and avenues, get exposure for Tech Prep and still reach a significant part of the audience we were targeting with our radio ads. As a result, we decided to invest a larger portion of our grant funds on the development of a Pitt County Tech Prep video and get professional assistance. We believe our final product justifies that decision.

In addition to the specific marketing activities supported through this grant, we operated a live Tech Prep booth at our county fair and at a farm show. As examples of a few of our continuing or on-going marketing efforts we placed ads in school newspapers and yearbooks, we incorporated information about Tech Prep in brochures produced by other agencies or groups that promote Pitt County, and we spoke to civic groups about Tech Prep at every opportunity.

In summary, we believe we successfully carried out the intent and purpose of our proposal. We will continue to work together to strengthen our Tech Prep Program and to make it responsive to our students, our community, and to the workplace.

## Executive Summary

Consortia Number: 92I-27

Consortia Members: Polk County Schools  
Isothermal Community College

## Executive Summary

Since January of 1991 Polk County Schools has been involved in a restructuring and redesign of the secondary curriculum. This process will continue through the 1995-96 school year. Dr. Willard Daggett, former Director of Occupational Education in the state of New York, is serving as the major consultant to the school system to lead the staff in developing an outcome-based curriculum. Implementation of the OBE model will result in total restructuring of the instructional curriculum, assessment program, and delivery system. The curriculum which is being developed identifies what graduates must know and be able to do, and the level of competency they need in every program area. An integral part of the planning phase has been redesign of vocational education courses to reflect Tech Prep/Applied Academics Course of Study as well as redesign of counseling services for students. Intensive, on-going staff development, the involvement of parents, business/community leaders, and community college staff are key elements of both the planning and implementation.

### Tech Prep Program

Ninth Grade Core Courses - Communication Skills: basic competencies in reading/writing/speaking & listening for personal response, information, and critical evaluation. Integrated Mathematics: basic operations, algebra, geometry, probability, statics, measurement, and logic. Scientific Literacy: scientific understanding, technological literacy, and problem solving. Social Sciences: social sciences/civic behavior, decision-making, critical thinking, personal and career development, and cultural understanding. Physical education: health, self-esteem, use of leisure time.

Applied Academic Course of Study - A new ninth grade course, Personal Resource Management, is required for all Applied Academic Students. In the tenth grade, students will take a course more general to their chosen career objective. Ex. Principles of Technology for students interested in electronics, automotive technology, drafting, manufacturing, carpentry. In the eleventh and twelfth grades students take career specific courses.

New Schedule - Polk County High School has adopted a new A - B Day schedule. In this format students attend each class every other day for 110 minute blocks.

Student-Based Advocate Program - Every student has a school-based advocate to provide support, foster self-esteem, explore career goals, protect learning options, ensure that student needs are being met, and to monitor student progress. Adequate time is scheduled for close teacher-student interaction. The advocate is assigned to a small group of students for three years at the middle

school level, and for four years at the high school level. Comprehensive four year plans are developed at the end of the eighth grade by the parent, advocate, and student based on strengths, interest, and future goals. The advocate curriculum for the month of February is devoted to career development in preparation for registration in March. Each student has a career and education portfolio which they develop through the Career Explorations and Advocate programs.

Grading/Assessment - Changes in reporting progress to parents has occurred. "Authentic assessment" is utilized to provide more complete information to parents regarding the student's level of mastery in specific competencies and skills. Increased parent involvement is encouraged. Portfolios of student work are maintained. Traditional grading systems have been replaced with a more detailed account of student performance.

Staff Development - Staff Development is a ongoing part of our curriculum reform effort and we have not separated implementation and staff development. Dr. Daggett and his staff continue to lead over twelve work days each year which support and expand our curriculum reform. We continue to send teachers to integration workshops sponsored by the Department of Public Instruction. We continue to support our career guidance effort through a national NOICC Grant and SOICC staff development activities. We continue to send teachers to visit other school systems around the nation and bring new ideas and materials back to our system. We are continuing to bring teachers in by departments during the summer to write and revise curriculum, and to develop authentic assessments.

New Courses - Our Tech-Prep Grant has allowed us to expand our course offerings. New courses include: Principles of Technology I & II, Technical Math, Technical Drafting I & II, Electronics, Personal Resource Management, Landscape Design, and Applied Biology/Chemistry. These courses all reflect a move to upgrade students exposure to new technology and an increased exposure to math and science.

CTB MacMillan/McGraw-Hill Pilot Site - Folk County High School has been selected to pilot the use of the CTB Testmate family of software school wide during the 1993-94 school year. This will involve training of all teachers by CTB and should improve our use of the VOCATS system as a way to monitor student mastery of performance objectives in all subject areas.

Four Year Plan - The implementation of our program will occur over a four year period. This allow us to continually evaluate what we have implemented, revise what is necessary, and upgrade or improve both old and new programs. We have in place a Tech Prep task Force made up of business and community leaders who help develop ways to advance and refine our curriculum.

## Executive Summary

Consortia Number: 92I-28

Consortia Members: Reidsville City Schools  
Rockingham Community College

# Reidsville City Schools

## Tech Prep Grant

1992-93

### Executive Summary

Reidsville City Schools, one of 4 school systems in Rockingham County, has completed the 2nd year of Tech Prep implementation at Reidsville Senior High School. After one year of planning Tech Prep and 2 years of implementation, much progress has been made but Tech Prep is a journey, not an event. New goals and objectives must continue to be set and accomplished.

The Tech Prep accomplishments for 1992-93 are:

Articulation - The academic staffs of English, Math, Science and Social Studies from the 4 high schools met with their counterparts at Rockingham Community College, reviewed the curriculums and made recommendations for the smoothest transition from high school to community college.

Curriculum - Integration activities occurred in many areas of the high school with one mini-grant in English and Business Education making considerable progress.

Tech Prep funds were spent in upgrading technology and resources in:

Business department - computer, printers  
English - VCR's for Applied Communications, supplementary texts for Applied Communications modules  
Science - laserdiscs players and laserdiscs  
Health Occupations - laserdiscs player and laserdiscs  
Technology Education - laserdisc player and laserdisc, computers, software  
Math - Applied Math resources  
Guidance - Guidance Information System with Career Decision Making Software

Staff development - The key to a successful Tech Prep effort is continuing and relevant training for teachers. Staff members from Reidsville City Schools and Rockingham Community College participated in the following activities during 1992-93:

- Orientation for academic staffs of Reidsville Senior High School and Rockingham Community College.
- Business Industry Shadowing Project - 2
- N. C. Tech Prep Conference - Teachers from Reidsville Senior High School presented an Applied Communications workshop as well as presented demonstrations. Nine participants



attended.

- National Tech Prep Conference, Chicago - 1
- Applied Communications Workshop - 2
- Media and Technology Conference - One Technology teacher from Reidsville presented at this conference. Two participants attended.
- Atlantic Coast Business and Marketing Conference - Five participants attended.
- International Technology Education Association Conference - Charlotte - Four participants attended.
- North Carolina Educational Technology Conference - Five participants attended.
- Applied Bio/Chemistry Workshop - Two participants attended.
- Integration of Academic and Vocational Education Workshop - Four participants attended.
- Model Schools Conference - Five participants will attend.-

Public Awareness/Achievements - One true indication of the quality of the Tech Prep program at Reidsville Senior High School was Dr. Julia Williams being chosen for the RJR first place award for Outstanding Principal of a Tech Prep program. She received this honor, along with \$1,000 award for the school, in September of 1992.

Public awareness activities for 1992-93 were:

Tech News - distributed to all 6-12 staff  
Chamber of Commerce Education council  
Chamber of Commerce Monthly Newsletter sponsorship  
Reidsville Review advertisement

Conclusion - The Tech Prep program at Reidsville Senior High School is thriving and continues to receive good response from students, teachers, parents and the community. Approximately 35% of the students are enrolled in one of the 3 Tech Prep courses of study. The number of students continuing their education at the community college is on the increase.

To assess the status of Tech Prep in all merging units, a Tech Prep checklist was completed in the Spring of 1993. This information will be used by the Tech Prep Task Force to plan the future direction of Tech Prep for Rockingham County Consolidated Schools.



## Executive Summary

Consortia Number: 92I-29

Consortia Members: Richmond County Schools  
Richmond Community Colleges

RICHMOND COUNTY SCHOOLS  
1993 Tech Prep Final Report  
Implementation Grant

Implementation of Tech Prep in Richmond County began in the 1986-87 school year. Strong administrative support from both school systems, a system for data collection, lots of staff development activities, continuous external and internal marketing strategies and purchasing of state-of-the-art equipment have been key components in the continuous implementation of the Richmond Tech Prep program.

In 1992-93 staff development activities have included participation in state department integration workshops, applied courses workshops (communications, biology/chemistry) and school-business-industry collaborative curriculum teams.

Tech Prep marketing has reached educators, students, parents and employers. The strategies begin each year in October with curriculum updating thru March with completion of student course registration. This period involves a blitz of marketing strategies: business/industry/school team workplace awareness assemblies at each school; radio, newspaper, billboard advertisements; updating of brochures, pamphlets, booklets; school tours/openhouse; Tech Prep video presentations, exhibits and business/industry Tech Prep awareness luncheon/breakfast.

The strongest implementation component of Tech Prep is the dedicated administrative commitment from both school systems, public schools and the community college. The public schools system superintendent and community college president must believe in the Tech Prep concept and continuously work to insure the implementation of the program.

A system of data collecting began in Richmond County in 1986 when the Board of Education adopted six educational goals for economic growth, with the target date to be 1990. These results-oriented goals have supplied valuable student achievement data as administrators have implemented the Tech Prep concept. These goals continue as major groupings under which all Senate Bill 2 Objectives can be arranged.

The Tech Prep concept has proven to be a strategy that raises students' academic levels and keeps pace with scientific/technological developments in our community, our economic system and our global relationships.

In 1986, data shows that only 30% of the students were enrolled in a college prep course of study. Presently 75% of the students in grades 10-12 are enrolled in either college prep or tech prep.

The number of students declaring intentions of attending two-and-four year colleges has increased from 48% in 1986 to 81% in 1992. The follow-up survey of 1992 Tech Prep graduates shows 62% of them in either 4 year college, community college or the military.

Algebra I data proved that more students can handle the higher level math. In 1986 end-of-course testing for 352 Algebra I students (47.1% of the class) showed an average core score of 53.6%. In 1992-93 413 students (72.2% of the class) had an average core score of 62.6%. The cumulative SAT score has risen from 771 in 1986 to 868 in 1992. The dropout rate in 1986 was 7.2% and has dropped to 2.9% in 1992.

We in Richmond County are pleased that our overall academic achievement continues to improve, the dropout rate is lower and the percentage of our graduates continuing their education beyond high school is up substantially. Our achievement has not been easy. Hard working, committed staff members, involved parents, supportive citizens, and political and business leaders have all contributed to our achievements.

We will continue to set goals in Richmond County because we must continue to raise educational standards and expectations of students, schools, parents and the entire community so that our youth will be competitive nationally and internationally.

## Executive Summary

Consortia Number: 92I-30

Consortia Members: Robeson County Schools  
Robeson Community College

Public Schools of Robeson County/Robeson Community College  
1993 Tech Prep Final Report  
Presentation Summary  
Fayetteville Technical College  
June 22, 1993

I. ACTIVITIES PRIOR TO CURRENT GRANT YEAR

A. 1990-91 Planning Year

1. Steering Committee Established
2. Awareness, orientation, and public relations activities initiated
3. Inservice activities conducted
4. Curriculum articulation between Robeson Community College and PSRC

B. 1991-92 Implementation Year

1. Awareness, orientation, public relations activities continued
2. Participation in state and local staff development activities
3. Tech Prep Assistance Center (TPAC) established at Robeson Community College
4. Curriculum changes
  - a. Food Science Implemented at each high school
  - b. Vocational changes include Health Occupations and Technology programs added at each high school
  - c. Local training for Principles of Technology begins

II. 1992-93 TECH PREP GRANT - EMPHASIS PLACED ON INTEGRATED LEARNING/CURRICULUM

A. Strategies

1. RCC activities
  - a. NC Tech Prep Associate Degree conference
  - b. Counselor Workshop
  - c. Participation in Tech Prep Expo
  - d. Community contacts
  - e. Advisory committees
  - f. Business/Industry support
  - g. Leadership 2000...Fifth Annual Conference on Leadership Development in Community Colleges
  - h. Institutional support
  - i. TPAC activities
2. Awareness, orientation, and public relations activities continue
3. Participation in state and local inservice activities
4. Curriculum
  - a. Principles of Technology established at each

- high school
- b. Interdisciplinary movement to Promote Applied Curriculum and Technology (IMPACT) teams formed at each high school

#### B. Results

1. Curriculum Integration Plan prepared for each high school
  - a. Rationale for curriculum integration
  - b. Identified barriers to curriculum integration
  - c. Common course content identified
  - d. Need for applied courses
  - e. Resources available to achieve curriculum integration
  - f. Staff development plan to achieve integration
  - g. Recommendations
2. Major curriculum changes initiated
  - a. Elimination of general track and remedial courses
  - b. Applied math, applied communication, applied chemistry, technical math, and Principles of Technology II added to curriculum
  - c. High school registration bulletin revised
3. Instructional partnerships developed between and among academic and vocational teacher
4. Tech Prep Enrollment

	<u>9-12 Enrollment</u>	<u>Tech Prep Students</u>	<u>Percentage</u>
1991-92	6,705	1,646	24.5
1992-93	6,716	2,799	41.7

5. Business Education technology plan implemented

#### III.

##### THE FUTURE

- A. Analysis of available data
- B. Continued emphasis on integrated learning/curriculum
- C. Apprenticeships

## Executive Summary

Consortia Number: 92I-31

Consortia Members: Rockingham County Schools  
Western Rockingham City Schools  
Eden City Schools  
Rockingham Community College

## TECH PREP EXECUTIVE SUMMARY - 1993

### EDEN CITY - ROCKINGHAM COUNTY - WESTERN ROCKINGHAM CITY ROCKINGHAM COMMUNITY COLLEGE

An articulation agreement was created and implemented for the 1992-93 academic year between the consortia and Rockingham Community College. The initial articulation process focused on business, health and technical program courses.

Articulation meetings for faculty in English, math, science and social studies were held in October, 1992. As a result of these meetings, course competencies were updated, textbooks reviewed, software and equipment evaluated, Tech Prep posters created, and advanced placement agreements implemented.

Rockingham Community College responded to the need to offer additional health related programs by offering phlebotomy during the Spring quarter of 1993. During the academic year the Department of Community Colleges approved RCC to offer Surgical Technology and Respiratory Therapy Technology as well.

An application to offer Horticulture Technology has been submitted to the Department of Community Colleges and approval is expected in July.

Rockingham Community College has worked closely with consortia schools to update program information presented to high school students during their Spring registrations.

Tech Prep was marketed to our students and parents by mailing brochures to parents, distributing tri-fold brochures to students, and making small group presentations using transparency and video tape. In addition, Tech Prep information was included in all materials utilized in the registration process. Tech Prep was featured by in-school television, school newspaper articles and bulletin board displays. Radio spots and speaking engagements to the Chamber of Commerce and local civic clubs were also used to educate the public, community, parents, and students.

All three high schools have added courses to the curriculum to enhance the Tech Prep concept. Such courses as drafting, tourism marketing, principles of business, principles of technology, allied health sciences, horticulture, fundamentals of technology, technical math, and law enforcement have been added to the course of study. In order to strengthen the curriculum, lower level basic skill courses in language and mathematics were deleted.



In addition, some vocational courses were deleted due to course content not meeting the needs of the job market. Such courses as recordkeeping, advanced typewriting, introduction to computers, and home-gardening were dropped. Many courses were upgraded with state of the art equipment to meet the demands of technology being utilized in community business and industry.

Staff development has been an integral component of the Tech Prep emphasis this school term. Tech Prep teacher teams and administrators have participated in a number of staff development activities including the state-wide Tech Prep Conference, Articulation Workshop, Career Guidance Workshop, Integration of Vocational/Academic Workshop, Technology Conference, Applied Communications Workshop, Technical Math Workshop, and Principles of Technology Workshop.

An enhancement of preparatory services provided to Tech Prep students has promoted student success in vocational and academic courses. Each student, through a cooperative effort involving teachers and counselors, has developed a career development plan for the 93-94 school term.

The Tech Prep Program has ensured that special population students receive adequate support services. Special population students have been identified, provided counseling/testing services and individual instructional services on a high need basis.

A major thrust of project materials and equipment funds was the implementation of the Principles of Technology Program in each high school.

Implementation of Applied Communications, Applied Mathematics, and integration of vocational and academic projects in each of the high schools required considerable expenditures for materials and equipment. In order to update our guidance program, hardware and software was purchased for guidance information systems.

Our local boards of education have supported the Tech Prep Project with additional local funding. Together they appropriated approximately \$450,000 for computers and other equipment, and another \$30,000 in software and supplies to upgrade technology in our middle and high schools.

## Executive Summary

Consortia Number: 92I-32

Consortia Members: Stanly County Schools  
Stanly Community College

## EXECUTIVE SUMMARY

The purpose of the Tech Prep Program in Stanly County is to meet the growing need for high school graduates to have a more technically-oriented educational program of studies enhanced with a better background in math, science and communication skills.

In introducing Tech Prep to our LEA, the Stanly County Board of Education offered Applied Math, Applied Communications, and Principals of Technology for the first time during the 1992-93 school year. North Stanly High and West Stanly High offered three of the applied courses. Both North Stanly High with an enrollment of 640 students and West Stanly with it's enrollment of 685 students registered two classes of Applied Math and Principals of Technology. North Stanly registered one class of Applied Communications while West Stanly registered two classes. South Stanly with a student population of 427 introduced only Applied Math in the 92-93 school year. Applied academics will be expanded in that school during the upcoming school year to include Principals of Technology. The size of South Stanly makes it more difficult to make changes in its instructional offerings for the reasons you well understand that are associated with small schools. Total costs for introducing applied academics to our LEA this school year and to prepare to offer PT at South Stanly in the next school year has exceeded \$116,400.00 dollars with approximately 42% of those costs reimbursed through the \$50,000.00 Implementation Tech Prep Grant. An attachment shows both total cost and Tech Prep Grant support for the endeavor. Excluded from the list are expenses which occurred in the 1991-92 FY relating to promotional efforts in media and/or registration activities plus costs incurred in the scheduling of onsite visitations that were supported through local funding.

The greatest impact in applied academics for the most reasonable cost has been the Applied Communications. The teachers responsible for those courses have been very creative using community business and industry resource personnel to supplement their instructional activities. One school, North Stanly is now evaluating computer support software hoping to add activities incorporating the high school computer lab.

In my opinion, Applied Math has been the next best program when evaluating results against cost per student. The laboratory equipment and the instructional manuals have added a component to math that creates interest even to the student that is basically turned off in school. The teachers working in those assignments have been extremely excited about the new courses and those positive attitudes have been picked up by the students.

Without doubt, PT is the most exciting of the three integrated academic programs. However, a major concern on my part is the high cost of implementation. Personally, I feel that vendors (large or small) who had early access to data helping them put together equipment packages for PT have taken advantage of our start-up needs and have put some heavy costs on us. Had I been in this position as director earlier and had an opportunity to take the training sessions for Applied Math and PT last summer to become more familiar with the equipment needs and functions, I believe I could have put together a package of compatible equipment using competitive bidding and several vendors at a much lesser cost.

A very strong point of Tech Prep has been the articulation agreement with Stanly Community College involving five program areas at our high schools. Those include Business, Child Care, Marketing, Electronics and Drafting.

A disappointing aspect is that institution's decision not to include our Allied Health Science program in that agreement after it was converted at SDPI'S recommendation from Health Occupations to Allied Health Science based on the concept that the current curriculum would be more compatible with the programs offered by our local community college. A Tech Prep Associate Degree agreement undertaken to support continuity of education between the secondary and the post-secondary educational agencies is less than its best when our own students in a very strong Allied Health Science program under a very strong instructor will not receive advance placement considerations and/or will have to go on a twelve to eighteen month waiting list in their pursuit of a nursing related career.

Positive reinforcement for the Objectives/Outcomes of Tech Prep in Stanly County has occurred in the following areas:

- A overall reinforcement to strengthen and expand the existing working relationship with Stanly Community College.
- Increased instructional cooperation between academic and vocational programs through SDPI development training and implementation of team teaching activities on site
- Vocational/Technical education has been given the opportunity to play a more dominant role in registration and scheduling activities.
- The academic expectations of Vocational/Technical students are being increased and supported
- A Student Personalized Education Plan used previously to guide and track each student through high school has been upgraded to include appropriate data that will qualify its being used as a Career Development Plan.
- The Tech Prep Associate Degree Program is being emphasized as a positive option for all vocational/technical education program areas having post secondary options
- Public awareness of the Tech Prep Associate Degree program is emphasized at every available opportunity.

The expected outcomes of this year's activities in regards to the introduction of Tech Prep in the three high schools in our LEA are difficult to evaluate at this time. VoCATS and VEIS data collected and/or generated in the upcoming school year will help evaluate the results of this year's endeavors.

## Executive Summary

Consortia Number: 92I-33

Consortia Members: Tyrrell County Schools  
Beaufort Community College

TYRRELL COUNTY SCHOOLS AND BEAUFORT COUNTY COMMUNITY COLLEGE  
1993 TECH PREP ANNUAL REPORT  
EXECUTIVE SUMMARY  
June 23, 1993

Our consortium's presentation has focused on a select few of the advantages this tech prep grant has provided our students. This implementation grant enabled Columbia High School to upgrade its curriculum, allowing students the opportunity to develop those competencies needed to be successful in a two-year technical or community college. In addition, the inservice our teachers received through this grant created in them the desire and motivation to implement instructional strategies such as curriculum integration. As a result of these curriculum and instructional changes, graduates of Columbia High School will be better prepared to meet the needs of this ever-changing world.

Tech Prep's requirement that students be enrolled in grade level courses combined with our belief that all students can learn, resulted in Columbia High School offering a two-track program - Tech Prep and College Prep. The school no longer offers a general vocational curriculum in which students take remedial academic courses using below grade level texts and low level thinking skills. Our tech prep students are now taking courses taught at grade level in which higher order thinking skills are taught and learned. These are the skills business and industry are requiring from employees in the 21st century. In addition to the upgrading of the academic program for tech prep students, our vocational program has become more technically oriented. Computers have replaced typewriters, computerized accounting has replaced accounting, and courses such as general business and shorthand are being dropped from the program of studies and replaced with computer applications.

This grant made it possible for us to include two new courses in our program of studies. Technical math was introduced to the curriculum during the 1992-1993 school year and principles of technology will be taught beginning 1993-1994. With the limited financial resources Tyrrell County Schools have available to them, it is very unlikely these courses could have been added to the curriculum. With this grant, what would have normally been a dream for us, became a reality. The inclusion of these courses in our curriculum will enable our tech prep students to apply the math and science theories they learn, thus making them better qualified to meet the demands of a technological society.

These curriculum changes are enhanced by the efforts of our academic and vocational teachers through integration. Much time and effort have gone into exploring avenues available to integrate theory and application between our vocational and academic programs. Our video showed an English teacher and business teacher working together to integrate word-processing skills into an English writing assignment. The two teachers in the video worked together throughout the year assisting each other in their respective disciplines and even team teaching in order to integrate skills from each area. Also, the model house displayed, which was a joint effort between a math teacher teaching theories and a technology teacher teaching construction skills, demonstrated how theory and application are interrelated, and the appropriateness for integrating these two disciplines.

Even though Tech Prep is relatively new to our consortium, we feel confident that the changes that were initiated due to Tech Prep will make a difference in the quality of graduates leaving Columbia High School. This year 22% of our students were enrolled in Tech Prep. Next year we will have 48% enrolled in the program. At the end of the 1993-1994 school year, the number of students who will be graduating from Columbia High School and will have taken at-level courses in which they were taught to think critically and creatively, and who will have completed a more technically oriented vocational program where integrated instruction occurred, will be greater than any number we have previously graduated. The implementation grant we received this year paved the way for these instructional and curriculum changes to occur. Columbia High School graduates will be prepared to meet the demands of the 21st century.

## Executive Summary

Consortia Number: 92I-34

Consortia Members: Weldon City Schools  
Halifax County Schools  
Northampton County Schools  
Roanoke Rapids City School  
Halifax Community College



## Roanoke Valley Tech Prep Consortium

### Executive Summary 1992 - 1993 Implementation Grant

The organizational structure for implementation of Tech Prep for the Roanoke Valley Consortium was the same as that used in the planning phase. Superintendents of the four LEA's -- Halifax County, Northampton County, Weldon City, and Roanoke Rapids -- and the president of Halifax Community College formed the Executive Council. A representative from each system along with a business representative formed the Steering Committee. Three members of the Steering Committee chaired three principal committees -- Curriculum, Professional Development, and Marketing. Principal committees had members from vocational and academic areas, counselors, administrators, and broad-based representation from business and industry.

The LEA's registered 9th graders for Tech Prep as follows:

Roanoke Rapids	-	34	Northampton County	-	396
Weldon City	-	31	Halifax County	-	unavailable

For 1992-93, the consortium had seven objectives for Tech Prep. Each is discussed along with the strategies implemented.

#### **1. To increase enrollment and academic achievement levels of students in higher-level math and science courses.**

Each LEA revised course offerings to delete courses, add more challenging courses, and to introduce applied academic courses. Efforts to expand business and industry involvement included representation on committees (principal and articulation), implementation of program changes as a result of business/industry surveys, interaction with the Chamber of Commerce Education Committee and Inner-Governmental Council, and the Tech Prep Expo.

#### **2. To increase the technical competence of students.**

Equipment acquisition supported this objective. Computers, lab equipment for Principles of Technology, electronics and health occupations equipment, graphic calculators, and materials for applied math and science were purchased. Professional development activities (several funded with institutional budgets) supported faculty developing skills for new technologies. At all levels, student exposure to computers was expanded.

High school teachers and community college faculty participated in a follow up session for curriculum articulation. Each articulation group included a representative from a related business. An industry leader addressed the entire group to emphasize the importance of stronger academic and technical skills in the workplace.

#### **3. To improve the career decision-making process for students.**

Several LEA's offered Career Exploration for students in grades 7 - 8. Four-year plans were developed for 8th graders at the end of the year. A number of schools conducted career day activities. The Consortium sponsored a Tech Prep Expo in April for 2,000 8th and 9th graders and some upper grade

students. Eleven area businesses along with HCC technical/vocational programs participated. The purpose of the Expo was to expose these students to technical career choices.

4. To increase graduates entering post-secondary education.

To support this objective the LEA's included requirements for more rigorous courses in their Tech Prep course of studies guides. By taking the more challenging courses, students would have more flexibility to enter post-secondary education. To facilitate admission to HCC, an on-campus luncheon was held for all counselors to further familiarize them with technical programs and with financial aid opportunities. Placement testing for admission was conducted at the high schools, and HCC conducted a number of recruitment activities. The Tech Prep Expo also supported this objective.

5. To decrease drop-out rates.

The Tech Prep Expo directly addressed this objective by providing an educational focus for students. The involvement of business and industry leaders has resulted in application-oriented courses. With more focused application-based courses, students will realize the relevancy of their course work and will be less likely to drop out.

6. To encourage student participation in Tech Prep.

The Consortium Marketing Committee was active in promoting the program with faculty, counselors, administrators, students, parents, and the general public. Two newsletters were distributed in the educational and business community. The HCC Summer Schedule that is delivered to 30,000 homes featured Tech Prep as a major focus. Newspaper ads were run in all local papers, and banners and posters were displayed in the schools. For the Tech Prep Expo all 10th - 12th graders and their parents were invited by direct mail to participate at a special time. While the attendance was minimal, the students and parents who did come found the Expo to be helpful in deciding about curriculum choices.

7. To implement and evaluate services for special populations.

Halifax Community College embraces the open door policy of admission. Restrictive standards for admission to the school are not imposed; however, immediate admission to any curriculum is not guaranteed. Placement testing is required to determine if students need developmental courses to help them be successful. In addition to these courses, tutoring is available. The college hosted a professional development activity for all faculty and staff during the year to better prepare them for the behavioral challenges posed by a larger population of younger students.

## Executive Summary

Consortia Number: 92I-35

Consortia Members: Winston-Salem/Forsyth Schools  
Forsyth Technical Community College

The Winston-Salem/Forsyth County Schools system, in close partnership with Forsyth Technical Community College and area businesses, continues to move toward its goal of implementing the Tech Prep philosophy and initiative in not only the schools of the city and county, but in the total community as well. Toward that end, our partners in education and business have spent a year with us planning and implementing various Tech Prep projects. What follows is the essence of the year's Tech Prep labors...a year filled with challenges and triumphs.

We feel very proud of the gains made in the area of career counseling for all students. We have surpassed the goal outline in our proposal. Because of the Tech Prep initiative, every student in the system will develop his own career planning portfolio; in fact, this career portfolio process has been approved by the local school board as standard policy for all schools. Beginning in elementary school through fifth grade, all students will receive instruction and counseling about various career and educational opportunities. During middle school, students will initiate their formal career portfolios, including in their portfolios assessment reports of their individual career interests and aptitudes, student work related to career experiences, field trip and shadowing information, and other similar pieces. By the time middle school students leave the eighth grade and move into their high schools, they will have begun their high school educational profile on which students select career clusters, map out their four - year course of study, and select the post-educational opportunities most appropriate to individual career planning. This K -12 career planning process which Tech Prep has initiated guarantees that all students will receive instruction and guidance geared toward helping them succeed after high school graduation.

As stated on page eleven of our proposal, marketing and promoting Tech Prep to our varied audiences are critical. We have spent many hours in talking to different groups about Tech Prep, explaining what it means to the future of students, schools, and area businesses. Working with a professional marketing firm has opened other opportunities for relaying the potential of Tech Prep; this marketing firm is developing print and audio-visual materials for our Tech Prep program. Thanks to the generosity of R.J. Reynolds - Nabisco, we have an excellent video to use with area businesses as we recruit more corporate involvement in our local Tech Prep initiative. We are sensitive to the needs of the total community for information about Tech Prep and how it will impact students, schools, and businesses; in fact, we are earnestly pursuing speaking engagements in neighborhood churches, community centers, business cafeterias, etc. By informing and involving different audiences in Tech Prep, we can help our efforts take root and prosper.

In the area of curriculum development, our year can be summarized in one word..."renewal." During the 1992 - 1993 school year, over 1900 hours were devoted to refining the high school curriculum by over 170 people, representing our schools, FTCC, and area businesses (outcome 1, page 7). Nine curriculum teams worked collaboratively to develop recommended courses of study (outcome 3, page 7), recommendations for course changes, alignment of the high school and FTCC curricula (outcome 2, page 7), and requisite employability skills for entry-level employment. As part of the curriculum renewal efforts, we spent the year offering various staff development activities which helped support teachers and other staff members in the transition to Tech Prep. We know that for Tech Prep to survive, we must help teachers by providing quality in-service training. By thoroughly examining our curricula and questioning ourselves about our current instructional practices, we can improve what we offer all students, thereby better preparing them for successful entry into the world of work. The curriculum renewal effort proved challenging, yet very rewarding as we struggled together to determine what all students need in order to become productive, skilled workers ready to face a rapidly changing workplace. We look forward to the further curriculum renewal efforts of the coming school year, as we begin to implement the various curriculum recommendations and courses of study.

Constant evaluation is the final component of this year's Tech Prep efforts. In creating new direction and focus for our counseling, curriculum, and promotional activities through Tech Prep, we continually assess these activities. With every committee and task, we preface the work with how we are going to evaluate and refine the efforts. We joke that with Tech Prep, we never have a "done deal," a finished product; but behind the humor is the very real truth that Tech Prep by its very nature is evolutionary; that the power of Tech Prep is that it grows out of the continually changing needs of the local workplace. Because local needs change, our Tech Prep efforts must be constantly revisited to evaluate and refine. Like the other components, the evaluation of Tech Prep is collaborative, involving school staffs, FTCC faculty, and area business representatives. We combine both formal and informal evaluative tools in assessing the success of Tech Prep in this community. And we will adapt and alter the evaluative tools as the needs change.

In closing, this school year has produced so much more than this two-page summary can present. Behind this short document is hundreds of hours of reform efforts aimed at *really* improving our public schools. Never in the history of our community have so many professionals from so many diverse backgrounds sat down together to question, create, dream, and work together to help all students succeed in the workplace of tomorrow. Much has been accomplished; much more remains to be done. But we anticipate with excitement the year to come as we continue to collaborate to move ourselves and our students toward fulfilling and productive living in the twenty-first century.